website http://www.lgservice.com
e-mail http://www.lgeservice.com/techsup.html

LG

# LG
# Multi Type Air Conditioner
# *SERVICE MANUAL*

MPS Variable

| *MODEL* | Cooling Model | Heating Model |
|---|---|---|
| • Outdoor Unit: | L3UC482FA0 | L3UH482FA0 |
| | L3UC482NA1 | |
| | L4UC602FA0 | L4UH602FA0 |
| • Indoor Unit: | LMNC122LRL0 | LMNH122LRL0 |
| | LMNC182LTL0 | LMNH182LTL0 |
| | LMNC242LTL0 | LMNH242LTL0 |
| | LMNC122LRA0 | LMNH122LRA0 |
| | LMNC182LTA0 | LMNG182LTA0 |
| | LMNC242LTA0 | LMNH242LTA0 |
| | LMNC122BTG0 | LMNH122BTG0 |
| | LMNC182BTG0 | LMNH182BTG0 |
| | LMNC242BHA0 | LMNH242BHA0 |
| | L3NC122NRA1 | |
| | L3NC242NRA1 | |

**CAUTION**

- BEFORE SERVICING THE UNIT, READ THE SAFETY PRECAUTIONS IN THIS MANUAL.
- ONLY FOR AUTHORIZED SERVICE PERSONNEL.

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# Safety Precautions

To prevent injury to the user or other people and property damage, the following instructions must be followed.

■ Incorrect operation due to ignoring instruction will cause harm or damage. The seriousness is classified by the following indications.

| | |
|---|---|
| ⚠**WARNING** | This symbol indicates the possibility of death or serious injury. |
| ⚠**CAUTION** | This symbol indicates the possibility of injury or damage. |

■ Meanings of symbol used in this manual are as shown below.

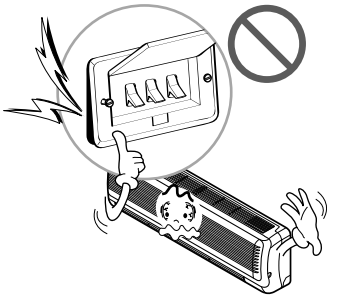
| | |
|---|---|
| ⃠ | **Be sure not to do.** |
| ❗ | **Be sure to follow the instruction.** |

## ⚠WARNING

### ■ Installation

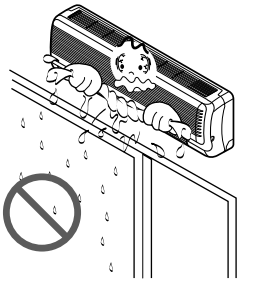
**Do not use a defective or underrated circuit breaker. Use this appliance on a dedicated circuit.**

• There is risk of fire or electric shock.



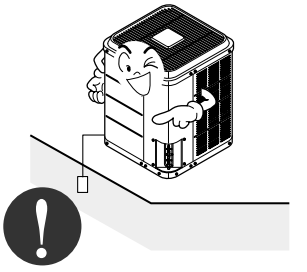
**Do not let the air conditioner run for a long time when the humidity is very high and a door or a window is left open.**

• Moisture may condense and wet or damage furniture.



**Always ground the product.**

• There is risk of fire or electric shock.

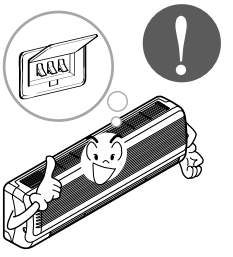


**Install the panel and the cover of control box securely.**

• There is risk of fire or electric shock.

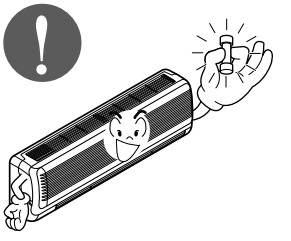
**Always install a dedicated circuit and breaker.**

• Improper wiring or installation may cause fire or electric shock



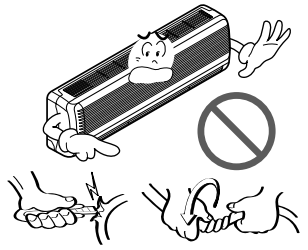
**Use the correctly rated breaker or fuse.**

• There is risk of fire or electric shock.



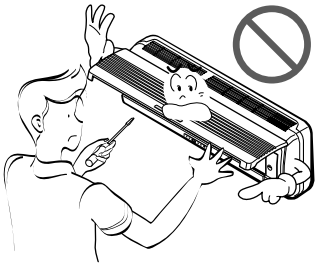
**Do not modify or extend the power cable.**

- There is risk of fire or electric shock.



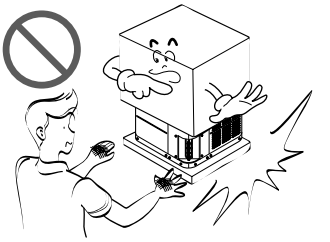
**Do not install, remove, or re-install the unit by yourself (customer).**

- There is risk of fire, electric shock, explosion, or injury.



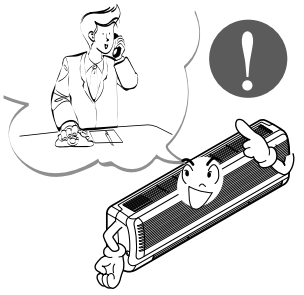
**Be cautious when unpacking and installing the product.**

- Sharp edges could cause injury. Be especially careful of the case edges and the fins on the condenser and evaporator.



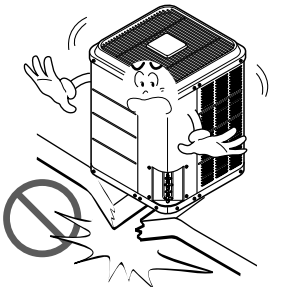
**For installation, always contact the dealer or an Authorized Service Center.**

- There is risk of fire, electric shock, explosion, or injury.



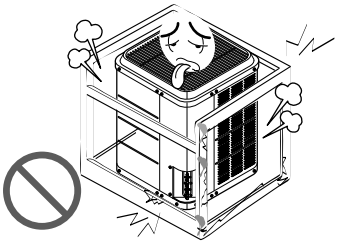
**Do not install the product on a defective installation stand.**

- It may cause injury, accident, or damage to the product.



**Be sure the installation area does not deteriorate with age.**

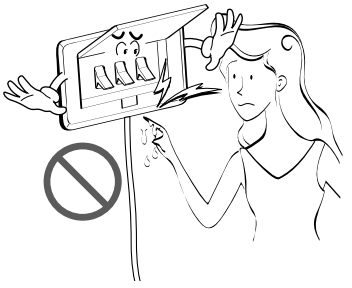
- If the base collapses, the air conditioner could fall with it, causing property damage, product failure, and personal injury.



## ■ Operational

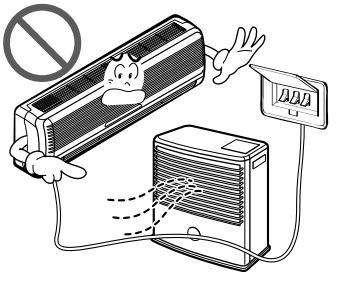
**Do not touch(operate) the product with wet hands.**

- There is risk of fire or electrical shock.



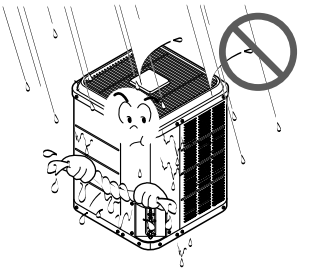
**Do not place a heater or other appliances near the power cable.**

- There is risk of fire and electric shock.



**Do allow water to run into electric parts.**

- It may cause There is risk of fire, failure of the product, or electric shock.

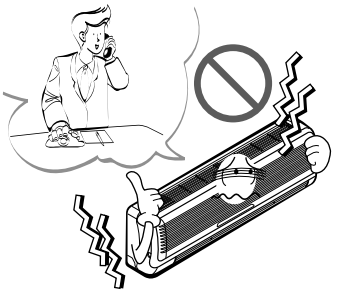


**Do not store or use flammable gas or combustibles near the product.**

• There is risk of fire or failure of product.

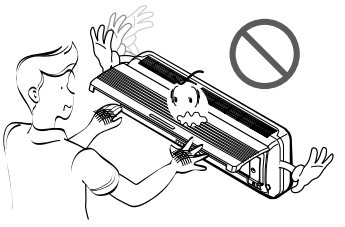
**If strange sounds, or smell or smoke comes from product. Turn the breaker off or disconnect the power supply cable.**

• There is risk of electric shock or fire.



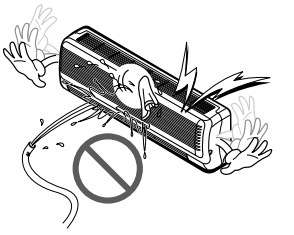
**Do not open the inlet grille of the product during operation. (Do not touch the electrostatic filter, if the unit is so equipped.)**

• There is risk of physical injury, electric shock, or product failure.



**Be cautious that water could not enter the product.**

• There is risk of fire, electric shock, or product damage.

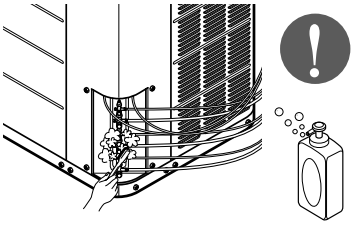


# ⚠CAUTION

## ■ Installation

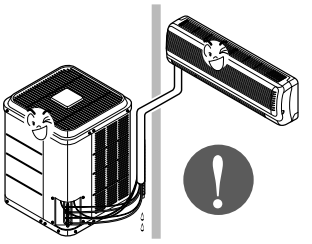
**check for gas (refrigerant) leakage after installation or repair of product.**

• Low refrigerant levels may cause failure of product.



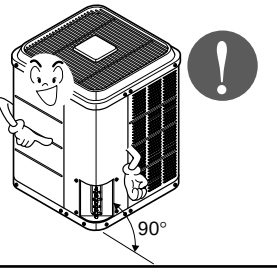
**Install the drain hose to ensure that water is drained away properly.**

• A bad connection may cause water leakage.



**Keep level even when installing the product.**

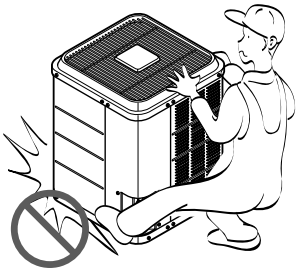
• To avoid vibration or water leakage.




## ■ Operational

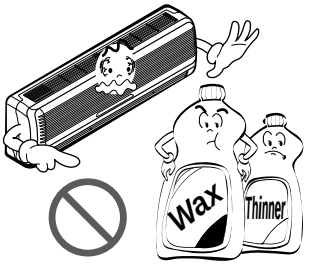
**Use two or more people to lift and transport the product.**

• Avoid personal injury.



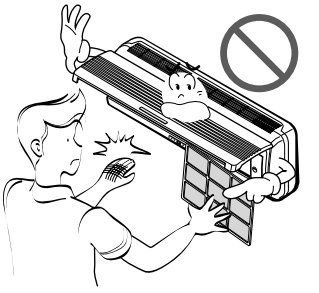
**Use a soft cloth to clean. Do not use harsh detergents, solvents, etc.**

• There is risk of fire, electric shock, or damage to the plastic parts of the product.



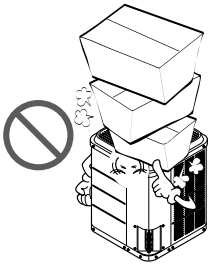

**Do not touch the metal parts of the product when removing the air filter. They are very sharp!**

• There is risk of personal injury.



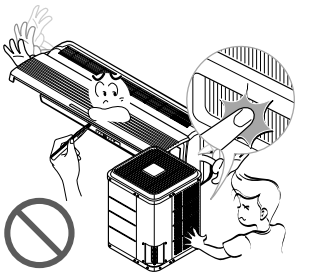
**Do not step on or put anyting on the product. (outdoor units)**

• There is risk of personal injury and failure of product.



**Do not insert hands or other objects through the air inlet or outlet while the product is operated.**

• There are sharp and moving parts that could cause personal injury.



# Details of LG Model Name

## Outdoor Unit

**L 4 U H 6 0 2 F A 0**

| | |
|---|---|
| **Development Sequence** | |
| **Function** | |
| A: Basic | |
| **Multi Type** | |
| F: Free joint multi | |
| **Electric Standard (Volts / Freq. / Phase)** | |
| 2: 220V / 60Hz / 1Ø | |
| **Capacity** | |
| 48: 48,000 Btu/h | 60: 60,000 Btu/h |
| **Model Type** | |
| C: Cooling only | H: Heat pump |
| **Outdoor / Indoor** | |
| U: Outdoor | N: Indoor |
| **Max. No. of indoor units** | |
| 4: One outdoor unit can connect with four indoor units(Reference to combination table) | |
| **Making place / Refrigerant** | |
| L: Changwon of korea / R22 | |

## Indoor Unit

**L M N H 2 4 2 L T L 0**

| | |
|---|---|
| **Development Sequence** | |
| **Function** | |
| A: Basic | L: Plasma |
| **Chassis Type** | |
| T: ST chassis | R: SR chassis |
| **Type** | |
| L: SR/ST chassis L look | |
| **Electric standard (Volts / Freq. /Phase)** | |
| 2: 220V / 60Hz / 1Ø | |
| **Capacity** | |
| 12: 12,000 Btu/h | 24: 24,000 Btu/h |
| **Model Type** | |
| C: Cooling only | H: Heat pump |
| **Outdoor / Indoor** | |
| U: Outdoor | N: Indoor |
| **Multi Type** | |
| M: Multi | |
| **Making place / Refrigerant** | |
| L: Changwon of korea / R22 | |

# Product Specifications

## 1. Outdoor

| Model | | | L3UC482FA0 | L3UH482FA0 |
|---|---|---|---|---|
| Cooling Capacity * | | kcal/h | 3024~12096 | 3024~12096 |
| | | W | 3515~14067 | 3515~14067 |
| | | Btu/h | 12000~48000 | 12000~48000 |
| Heating Capacity * | | kcal/h | - | 3024~12096 |
| | | W | - | 3515~14067 |
| | | Btu/h | - | 12000~48000 |
| Input * | Cooling/Heating | W | 1,460~5,360 | 1,460~5,360 / 1,540~5,640 |
| Running Current * | Cooling/Heating | A | 6.8~24.7 | 6.8~24.7/ 7.1~26 |
| Starting Current | Cooling/Heating | A | - | - |
| Power Supply | | Ø,V,Hz | 1Ø, 220V, 60Hz | 1Ø, 220V, 60Hz |
| Power Factor | | % | 98 | 98 |
| Compressor A (TPS Cycle) | Locked Rotor Amp. | A | 35/26 | 35/26 |
| | Type | | Rotary | Rotary |
| | Quantity | No | 1/1 | 1/1 |
| | Model | | QJ208KAB/QK185KAF | QJ208KAB/QK185KAF |
| | Maker | | LG/LG | LG/LG |
| | Capacity | kcal/h(Btu/h) | 14650/12900 | 14650/12900 |
| | Motor Type | | Single Phase Induction Motor / PSC | Single Phase Induction Motor / PSC |
| | Motor Input | W | 1356/1205 | 1356/1205 |
| | Oil Type | | ATMOS M60 or SUNISO 4GSI | ATMOS M60 or SUNISO 4GSI |
| | Oil Charge | cc | 450/350 | 450/350 |
| | O.L.P Type(model name) | | MRA98704~12026/MRA12070~12027 | MRA98704~12026/MRA12070~12027 |
| Compressor B (Single Cycle) | Locked Rotor Amp. | A | 68 | 68 |
| | Type | | Rotary | Rotary |
| | Quantity | No | 1 | 1 |
| | Model | | QP348KD24B | QP348KD24B |
| | Maker | | LG | LG |
| | Capacity | kcal/h(Btu/h) | 25700 | 25700 |
| | Motor Type/Starting Type | | Single Phase Induction Motor / PSC | Single Phase Induction Motor / PSC |
| | Motor Input | W | 2424 | 2424 |
| | Oil Type | | ATMOS M60 or SUNISO 4GSI | ATMOS M60 or SUNISO 4GSI |
| | Oil Charge | cc | 700 | 700 |
| | O.L.P Type(model name) | | Internal | Internal |
| Refrigerant | Charge | g(oz), type | TPS Cycle : 1980(69.8) at 7.5m Single Cycle : 2140(75.5) at 7.5m | TPS Cycle : 1980(69.8) at 7.5m Single Cycle : 2140(75.5) at 7.5m |
| | Type | | R22 | R22 |
| | Control | | L.E.V | L.E.V |
| Coil | Tube Size (OD) | inch(mm) | 0.276(7.0) | 0.276(7.0) |
| | Fins per inch | | 18 | 18 |
| | No. of Rows & Column/No. | | 2R,36C | 2R,36C |
| Fan Motor | Output | W | 207 | 207 |
| | Model | | IC-13670 LG39F | IC-13670 LG39F |
| | No. of Poles | | 6 | 6 |
| | Input | | 340 | 340 |
| | Running Current | A | 1.5 | 1.5 |
| | Capacitor | µF/Vac | 6/400 | 6/400 |
| Fan | Type | | Axial FAN | Axial FAN |
| | No. Used / Diameter | EA/inch(mm) | 1/Ø20.7(526) | 1/Ø20.7(526) |
| | Discharge | Side / Top | Top Discharge | Top Discharge |
| | Speed | rpm | 1000 | 1000 |
| Air Circulation | | CMM(CFM) | 80(2967) | 80(2967) |
| Noise Level(Sound Press,1m) | | dBA | 60 | 60 |
| SVC Valve | Liquid | inch(mm) | 1/4(6.35)*3EA | 1/4(6.35)*3EA |
| | Gas | inch(mm) | 1/2(12.7)*3EA | 1/2(12.7)*3EA |
| Drain(ID Ø) | | mm | - | - |
| Dimensions (W*H*D) | | inch(mm) | 28.0*32.6*27 (711 x 828 x 686) | 28.0*32.6*27 (711 x 828 x 686) |
| Net Weight | | kg(lbs) | 120(264.5) | 120(264.5) |
| Power Supply Cable | | No.* $mm^2$ | 3*4.5(Includes earth) | 3*4.5(Includes earth) |
| Interunit Cable | | No.* $mm^2$ | 4*0.75(Includes earth) | 4*0.75(Includes earth) |
| Max. Interunit Piping Length | Total of Each Room | m | 50(TPS Cycle)+20(Single Cycle) | 50(TPS Cycle)+20(Single Cycle) |
| | For One Room | m | 30(TPS Cycle) | 30(TPS Cycle) |
| Max. Installation Height Difference | Indoor Unit~Outdoor Unit | m | 30 | 15 |
| | Indoor Unit~Indoor Unit | m | 7.5 | 7.5 |
| Packing Dimension (W*H*D) | | inch(mm) | 33.5*35.0*30.1 (850 x 890 x 765) | 33.5*35.0*30.1 (850 x 890 x 765) |
| Stuffing Quantity | Without S/Parts | 20/40ft | 40/84 | 40/84 |

Notes:

1. Capacities are based on the following conditions:
   Cooling: - Indoor Temperature 27°C(80.6°F) DB /19°C(66.2°F) WB
   - Outdoor Temperature 35°C(95°F) DB /24°C(75.2°F) WB
   - Interconnecting Piping Length 7.5m
   - Level Difference of Zero.
2. Capacities are Net Capacities.
3. * : See Page "Combination Table"

| **Model** | | | **L4UC602FA0** | **L4UH602FA0** |
|---|---|---|---|---|
| Cooling Capacity * | | kcal/h | 3024~15120 | 3024~15120 |
| | | W | 3515~17584 | 3515~17584 |
| | | Btu/h | 12000~60000 | 12000~60000 |
| Heating Capacity * | | kcal/h | - | 3024~15120 |
| | | W | - | 3515~17584 |
| | | Btu/h | - | 12000~60000 |
| Input * | Cooling/Heating | W | 1350~6000 | 1350~6000/1500~6400 |
| Running Current * | Cooling/Heating | A | 6.5~28.0 | 6.5~28.0/7.0~30.0 |
| Starting Current | Cooling/Heating | A | - | - |
| Power Supply | | Ø,V,Hz | 1Ø, 220V, 60Hz | 1Ø, 220V, 60Hz |
| Power Factor | | % | 95 | 95 |
| Compressor A | Locked Rotor Amp. | A | 68/26 | 68/26 |
| (TPS Cycle) | Type | | Rotary | Rotary |
| | Quantity | No | 1/1 | 1/1 |
| | Model | | QP348KCC/QK185KAF | QP348KCC/QK185KAF |
| | Maker | | LG/LG | LG/LG |
| | Capacity | kcal/h(Btu/h) | 25700/12900 | 25700/12900 |
| | Motor Type | | Single Phase Induction Motor / PSC | Single Phase Induction Motor / PSC |
| | Motor Input | W | 2424/1205 | 2424/1205 |
| | Oil Type | | ATMOS M60 or SUNISO 4GSI | ATMOS M60 or SUNISO 4GSI |
| | Oil Charge | cc | 700/350 | 700/350 |
| | O.L.P Type(model name) | | Internal/External | Internal/External |
| Compressor B | Locked Rotor Amp. | A | 68 | 68 |
| (Single Cycle) | Type | | Rotary | Rotary |
| | Quantity | No | 1 | 1 |
| | Model | | QP348KCE | QP348KCE |
| | Maker | | LG | LG |
| | Capacity | kcal/h(Btu/h) | 25700 | 25700 |
| | Motor Type/Starting Type | | Single Phase Induction Motor / PSC | Single Phase Induction Motor / PSC |
| | Motor Input | W | 2424 | 2424 |
| | Oil Type | | ATMOS M60 or SUNISO 4GSI | ATMOS M60 or SUNISO 4GSI |
| | Oil Charge | cc | 1130 | 1130 |
| | O.L.P Type(model name) | | Internal | Internal |
| Refrigerant | Charge | g(oz), type | TPS Cycle : 2500(88.2) at 7.5m Single Cycle : 1900(67.0) at 7.5m | TPS Cycle : 2500(88.2) at 7.5m Single Cycle : 1900(67.0) at 7.5m |
| | Type | | R22 | R22 |
| | Control | | L.E.V | L.E.V |
| Coil | Tube Size (OD) | inch(mm) | 0.276(7.0) | 0.276(7.0) |
| | Fins per inch | | 18 | 18 |
| | No. of Rows & Column/No. | | 2R,36C | 2R,36C |
| Fan Motor | Output | W | 260 | 260 |
| | Model | | IC-13670 LG39G | IC-13670 LG39G |
| | No. of Poles | | 6 | 6 |
| | Input | | 143 | 143 |
| | Running Current | A | 0.77 | 0.77 |
| | Capacitor | µF/Vac | 6/400 | 6/400 |
| Fan | Type | | Axial FAN | Axial FAN |
| | No. Used / Diameter | EA/inch(mm) | 1/Ø20.7(526) | 1/Ø20.7(526) |
| | Discharge | Side / Top | Top Discharge | Top Discharge |
| | Speed | rpm | 1040/840 | 1040/840 |
| Air Circulation | | CMM(CFM) | 85(3002) | 85(3002) |
| Noise Level(Sound Press,1m) | | dBA | 65 | 65 |
| SVC Valve | Liquid | inch(mm) | 1/4(6.35)*4EA | 1/4(6.35)*4EA |
| | Gas | inch(mm) | 1/2(12.7)*4EA | 1/2(12.7)*4EA |
| Drain(ID Ø) | | mm | - | - |
| Dimensions (W*H*D) | | inch(mm) | 28.0*32.6*27 (711 x 828 x 686) | 28.0*32.6*27 (711 x 828 x 686) |
| Net Weight | | kg(lbs) | 130(286.6) | 130(286.6) |
| Power Supply Cable | | No.* $mm^2$ | 3*8.4(Includes earth) | 3*8.4(Includes earth) |
| Interunit Cable | | No.* $mm^2$ | 4*0.75(Includes earth) | 4*0.75(Includes earth) |
| Max. Interunit Piping | Total of Each Room | m | 50(TPS Cycle)+20(Single Cycle) | 50(TPS Cycle)+20(Single Cycle) |
| Length | For One Room | m | 20(TPS Cycle) | 20(TPS Cycle) |
| Max. Installation | Indoor Unit~Outdoor Unit | m | 30 | 15 |
| Height Difference | Indoor Unit~Indoor Unit | m | 7.5 | 7.5 |
| Packing Dimension (W*H*D) | | inch(mm) | 33.5*35.0*30.1 (850 x 890 x 765) | 33.5*35.0*30.1 (850 x 890 x 765) |
| Stuffing Quantity | Without S/Parts | 20/40ft | 40/84 | 40/84 |

Notes:

1. Capacities are based on the following conditions:
   Cooling: - Indoor Temperature 27°C(80.6°F) DB /19°C(66.2°F) WB
   - Outdoor Temperature 35°C(95°F) DB /24°C(75.2°F) WB
   - Interconnecting Piping Length 7.5m
   - Level Difference of Zero.
2. Capacities are Net Capacities.
3. * : See Page "Combination Table"

# 2. Indoor

| Indoor Unit Type | | | Wall Mounted | | |
|---|---|---|---|---|---|
| Model | | | **LMNC(H)122LRA0** | **LMNC(H)182LTA0** | **LMNC(H)242LTA0** |
| Nominal Cooling Capacity* | | kcal/h(W) | 3024(3516) | 4536(5275) | 6048/7032 |
| | | Btu/h | 12000 | 18000 | 24000 |
| Nominal Heating Capacity* | | kcal/h(W) | 3024(3516) | 4536(5275) | 6048(7032) |
| | | Btu/h | 12000 | 18000 | 24000 |
| Air Circulation | H/M/L | CMM(CFM) | 8.1(286) | 12.3(435) | 14.9(526) |
| External Static Pressure | | mmAq | - | - | - |
| Setting temperature range(cool/heat) | | °C | 18~30 / 16~30 | 18~30 / 16~30 | 18~30 / 16~30 |
| Fan motor | Output | W | 10 | 15.7 | 35 |
| | Model | | IC8420LG*** | IC8428LGB | IC8420LG*** |
| | No. of Poles | | 4 | 4 | 4 |
| | Input | W | 37 | 54 | 65.5 |
| | Running Current | A | 0.17 | 0.25 | 0.3 |
| | Capacitor | µF/Vac | 0.9 / 400 | 1.5/370 | 2.0 / 400 |
| Fan | Type | | Cross Flow Fan | Cross Flow Fan | Cross Flow Fan |
| | No. Used / Diameter | EA/inch(mm) | 1/Ø43(87) | 1/Ø43(87) | 1/Ø43(87) |
| Fan RPM | Cooling(H/M/L) | rpm | - | - | - |
| | Heating(H/M/L) | rpm | - | - | - |
| Noise Level (Sound Press,1m) | H/M/L | dBA | 39/35/31 | 42/39/36 | 45/41/39 |
| Temperature controller | | | Thermistor | Thermistor | Thermistor |
| Coil | Tube Size (OD) | inch(mm) | 0.275(7) | 0.275(7) | 0.275(7) |
| | Fins per inch | | 20 | 20 | 20 |
| | No. of Rows & Column | | 2R,12C | 2R,13C | 2R,13C |
| Dehumidification Rate | | l/h | 1.4 | 2.2 | 2.9 |
| Dimensions (W*H*D) | | mm | 35.4*11.2*6.1(900*285*156) | 42.9*12.4*6.8 (1090*314*172) | 42.9*12.4*6.8 (1090*314*172) |
| Net Weight | | kg(lbs) | 8(17.6) | 12(26.5) | 12(26.5) |
| Piping Connection | Liquid | inch(mm) | 1/4(6.35) | 3/8(9.52) | 3/8(9.52) |
| | Gas | inch(mm) | 1/2(12.7) | 5/8(15.88) | 5/8(15.88) |
| | Drain hose (ID Ø) | mm | 16 | 16 | 16 |
| Packing Dimension (W*H*D) | | inch(mm) | 38.4*14.6*9.2 (976 x 372 x 233) | 45.9*15.3*10.0 (1165 x 388 x 255) | 45.9*15.3*10.0 (1165 x 388 x 255) |
| Stuffing Quantity | Without S/Parts | 20/40ft | 340/720 | 270/540 | 270/540 |

1. * : See Page "Combination Table"
2. Due to our policy of innovation some specifications may be changed without notification.

| Indoor Unit Type | | | Ceiling Duct | | |
|---|---|---|---|---|---|
| Model | | | **LMNC(H)122BTG0** | **LMNC(H)182BTG0** | **LMNC(H)242BHA0** |
| Nominal Cooling Capacity* | | kcal/h(W) | 3024(3516) | 4536(5274) | 6048(7032) |
| | | Btu/h | 12000 | 18000 | 24000 |
| Nominal Heating Capacity* | | kcal/h(W) | 3024(3516) | 4516(5274) | 6048(7032) |
| | | Btu/h | 12000 | 18000 | 24000 |
| Air Circulation | H/M/L | CMM(CFM) | 10/9/8(352/317/282) | 13.5/12/10(477/424/353) | 20/18/16(706/636/565) |
| External Static Pressure | | mmAq | 2 | 2 | 8 |
| Setting temperature range(cool/heat) | | °C | 18~30 / 16~30 | 18~30 / 16~30 | 18~30 / 16~30 |
| Fan motor | Output | W | 35 | 126 | 60 |
| | Model | | YDK110*** | YSK110**** | IC-13450LG** |
| | No. of Poles | | 4 | 4 | 4 |
| | Input | W | 68 | 126 | 140 |
| | Running Current | A | 0.31 | 0.58 | 0.8 |
| | Capacitor | µF/Vac | 2.5 / 400 | 2.5/370 | 6 / 370 |
| Fan | Type | | Sirocco Fan | Sirocco Fan | Sirocco Fan |
| | No. Used / Diameter | EA/inch(mm) | 1/7.8(197) | 2/7.8(197) | 2/7.0(177) |
| Fan RPM | Cooling(H/M/L) | rpm | - | | 1130/1030/960 |
| | Heating(H/M/L) | rpm | - | | 1130/1030/960 |
| Noise Level (Sound Press,1m) | H/M/L | dBA | 37/34/31 | 38/36/34 | 37/35/33 |
| Temperature controller | | | Thermistor | Thermistor | Thermistor |
| Coil | Tube Size (OD) | inch(mm) | 0.276(7.0) | 0.276(7.0) | 0.276(7.0) |
| | Fins per inch | | 18 | 18 | 21 |
| | No. of Rows & Column | | 3R,12C | 2R,12C | 3R,10C |
| Dehumidification Rate | | l/h | 1.2 | 2 | 3 |
| Dimensions (W*H*D) | | mm | 25.6*9.0*21.1(650*230*535) | 39.4*11.8*21.1(1000*230*535) | 34.6*10.2*17.7(880*260*450) |
| Net Weight | | kg(lbs) | 22(48.5) | 29(63.9) | 35(77.2) |
| Piping Connection | Liquid | inch(mm) | 1/4 (6.35) | 1/4(6.35) | 1/4(6.35) |
| | Gas | inch(mm) | 3/8 (9.52) | 1/2(12.7) | 5/8(15.88) |
| | Drain hose (ID Ø) | mm | 22.6 | 25.4 | 22.6 |
| Packing Dimension (W*H*D) | | inch(mm) | 29.9*24.9*11.8(760*626*300) | 49.5*11.8*24.6(1258*300*625) | 44.7*13.4*23.0(1135*340*585) |
| Stuffing Quantity | Without S/Parts | 20/40ft | 172/356 | 123/251 | 48/101 |

1. * : See Page "Combination Table"
2. Due to our policy of innovation some specifications may be changed without notification.

# Combination Table

## 1. L3UC(H)482FA0

### Cooling

| Operation | Indoor Unit Combination Index(k Btu/h) | | | | Capacity (Btu/h) | | | | Input (W) | Current (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | Total | Unit-A | Unit-B | Unit-C | Total | | |
| 1 UNIT | 12(S-RAC) | | | 12 | 13000 | | | 13000 | 1460 | 6.8 |
| | 12(DUCT) | | | 12 | 12000 | | | 12000 | 1460 | 6.8 |
| | 18(S-RAC) | | | 18 | 18000 | | | 18000 | 2190 | 10.2 |
| | 18(DUCT) | | | 18 | 18000 | | | 18000 | 2190 | 10.2 |
| | 24(S-RAC) | | | 24 | 22000 | | | 22000 | 2600 | 12.1 |
| | 24(DUCT) | | | 24 | 24000 | | | 24000 | 2600 | 12.1 |
| | | | 24(S-RAC) | 24 | | | 22000 | 22000 | 2600 | 12.1 |
| | | | 24(DUCT) | 24 | | | 24000 | 24000 | 2600 | 12.1 |
| 2 UNIT | 12(S-RAC) | 12(S-RAC) | | 24 | 12500 | 12500 | | 25000 | 2760 | 12.6 |
| | 12(DUCT) | 12(DUCT) | | 24 | 12000 | 12000 | | 24000 | 2760 | 12.6 |
| | 12(S-RAC) | | 24(S-RAC) | 36 | 13000 | | 22000 | 35000 | 4060 | 18.9 |
| | 12(DUCT) | | 24(DUCT) | 36 | 12000 | | 24000 | 36000 | 4060 | 18.9 |
| | 18(S-RAC) | | 24(S-RAC) | 42 | 18000 | | 22000 | 40000 | 4740 | 22.1 |
| | 18(DUCT) | | 24(DUCT) | 42 | 18000 | | 24000 | 42000 | 4740 | 22.1 |
| | 24(S-RAC) | | 24(S-RAC) | 48 | 22000 | | 22000 | 44000 | 5360 | 24.7 |
| | 24(DUCT) | | 24(DUCT) | 48 | 24000 | | 24000 | 48000 | 5360 | 24.7 |
| 3 UNIT | 12(S-RAC) | 12(S-RAC) | 24(S-RAC) | 48 | 12500 | 12500 | 22000 | 47000 | 5360 | 24.7 |
| | 12(DUCT) | 12(DUCT) | 24(DUCT) | 48 | 12000 | 12000 | 24000 | 48000 | 5360 | 24.7 |

### Heating

| Operation | Indoor Unit Combination Index(k Btu/h) | | | | Capacity (Btu/h) | | | | Input (W) | Current (A) |
|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | Total | Unit-A | Unit-B | Unit-C | Total | | |
| 1 UNIT | 12(S-RAC) | | | 12 | 13000 | | | 13000 | 1460 | 6.8 |
| | 12(DUCT) | | | 12 | 12000 | | | 12000 | 1460 | 6.8 |
| | 18(S-RAC) | | | 18 | 18000 | | | 18000 | 2190 | 10.2 |
| | 18(DUCT) | | | 18 | 18000 | | | 18000 | 2190 | 10.2 |
| | 24(S-RAC) | | | 24 | 22000 | | | 22000 | 2600 | 12.1 |
| | 24(DUCT) | | | 24 | 24000 | | | 24000 | 2600 | 12.1 |
| | | | 24(S-RAC) | 24 | | | 22000 | 22000 | 2600 | 12.1 |
| | | | 24(DUCT) | 24 | | | 24000 | 24000 | 2600 | 12.1 |
| 2 UNIT | 12(S-RAC) | 12(S-RAC) | | 24 | 12500 | 12500 | | 25000 | 2760 | 12.6 |
| | 12(DUCT) | 12(DUCT) | | 24 | 12000 | 12000 | | 24000 | 2760 | 12.6 |
| | 12(S-RAC) | | 24(S-RAC) | 36 | 13000 | | 22000 | 35000 | 4060 | 18.9 |
| | 12(DUCT) | | 24(DUCT) | 36 | 12000 | | 24000 | 36000 | 4060 | 18.9 |
| | 18(S-RAC) | | 24(S-RAC) | 42 | 18000 | | 22000 | 40000 | 4740 | 22.1 |
| | 18(DUCT) | | 24(DUCT) | 42 | 18000 | | 24000 | 42000 | 4740 | 22.1 |
| | 24(S-RAC) | | 24(S-RAC) | 48 | 22000 | | 22000 | 44000 | 5360 | 24.7 |
| | 24(DUCT) | | 24(DUCT) | 48 | 24000 | | 24000 | 48000 | 5360 | 24.7 |
| 3 UNIT | 12(S-RAC) | 12(S-RAC) | 24(S-RAC) | 48 | 12500 | 12500 | 22000 | 47000 | 5360 | 24.7 |
| | 12(DUCT) | 12(DUCT) | 24(DUCT) | 48 | 12000 | 12000 | 24000 | 48000 | 5360 | 24.7 |

## 2. L3UC(H)602FA0

### Cooling

| Operation | Indoor Unit Combination Index(k Btu/h) | | | | | Capacity (Btu/h) | | | | | Input (W) | Current (A) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | Total | Unit-A | Unit-B | Unit-C | Unit-D | Total | | |
| 1 UNIT | 12(S-RAC) | | | | 12 | 13000 | | | | 13000 | 1460 | 6.8 |
| | 12(DUCT) | | | | 12 | 12000 | | | | 12000 | 1460 | 6.8 |
| | 18(S-RAC) | | | | 18 | 18000 | | | | 18000 | 2190 | 10.2 |
| | 18(DUCT) | | | | 18 | 18000 | | | | 18000 | 2190 | 10.2 |
| | 24(S-RAC) | | | | 24 | 22000 | | | | 22000 | 2600 | 12.1 |
| | 24(DUCT) | | | | 24 | 24000 | | | | 24000 | 2600 | 12.1 |
| | | | | 24(S-RAC) | 24 | | | | 22000 | 22000 | 2600 | 12.1 |
| | | | | 24(DUCT) | 24 | | | | 24000 | 24000 | 2600 | 12.1 |
| 2 UNIT | 12(S-RAC) | 12(S-RAC) | | | 24 | 12500 | 12500 | | | 25000 | 2760 | 12.6 |
| | 12(DUCT) | 12(DUCT) | | | 24 | 12000 | 12000 | | | 24000 | 2760 | 12.6 |
| | 12(S-RAC) | 24(S-RAC) | | | 36 | 13000 | 22000 | | | 35000 | 4060 | 18.9 |
| | 12(DUCT) | 24(DUCT) | | | 36 | 12000 | 24000 | | | 36000 | 4060 | 18.9 |
| | 18(S-RAC) | 18(S-RAC) | | | 36 | 18000 | 18000 | | | 36000 | 4060 | 18.9 |
| | 18(DUCT) | 18(DUCT) | | | 36 | 18000 | 18000 | | | 36000 | 4060 | 18.9 |
| | 18(S-RAC) | | | 24(S-RAC) | 42 | 18000 | | | 22000 | 40000 | 4740 | 22.1 |
| | 18(DUCT) | | | 24(DUCT) | 42 | 18000 | | | 24000 | 42000 | 4740 | 22.1 |
| | 24(S-RAC) | | | 24(S-RAC) | 48 | 22000 | | | 22000 | 44000 | 5360 | 24.7 |
| | 24(DUCT) | | | 24(DUCT) | 48 | 24000 | | | 24000 | 48000 | 5360 | 24.7 |
| 3 UNIT | 12(S-RAC) | 12(S-RAC) | 12(S-RAC) | | 36 | 12500 | 12500 | 12500 | | 37500 | 4060 | 18.9 |
| | 12(DUCT) | 12(DUCT) | 12(DUCT) | | 36 | 12000 | 12000 | 12000 | | 36000 | 4060 | 18.9 |
| | 12(S-RAC) | 12(S-RAC) | | 24(S-RAC) | 48 | 12500 | 12500 | | 22000 | 47000 | 5360 | 24.7 |
| | 12(DUCT) | 12(DUCT) | | 24(DUCT) | 48 | 12000 | 12000 | | 24000 | 48000 | 5360 | 24.7 |
| | 12(S-RAC) | 18(S-RAC) | | 24(S-RAC) | 54 | 12500 | 18000 | | 22000 | 52500 | 6030 | 27.8 |
| | 12(DUCT) | 18(DUCT) | | 24(DUCT) | 54 | 12000 | 18000 | | 24000 | 54000 | 6030 | 27.8 |
| | 18(S-RAC) | 18(S-RAC) | | 24(S-RAC) | 60 | 18000 | 18000 | | 22000 | 58000 | 6700 | 30.9 |
| | 18(DUCT) | 18(DUCT) | | 24(DUCT) | 60 | 18000 | 18000 | | 24000 | 60000 | 6700 | 30.9 |
| | 12(S-RAC) | 24(S-RAC) | | 24(S-RAC) | 60 | 12500 | 22000 | | 22000 | 56500 | 6700 | 30.9 |
| | 12(DUCT) | 24(DUCT) | | 24(DUCT) | 60 | 12000 | 24000 | | 24000 | 60000 | 6700 | 30.9 |
| 4 UNIT | 12(S-RAC) | 12(S-RAC) | 12(S-RAC) | 24(S-RAC) | 60 | 12500 | 12500 | 13000 | 22000 | 60000 | 6700 | 30.9 |
| | 12(DUCT) | 12(DUCT) | 12(DUCT) | 24(DUCT) | 60 | 12000 | 12000 | 12000 | 24000 | 60000 | 6700 | 30.9 |

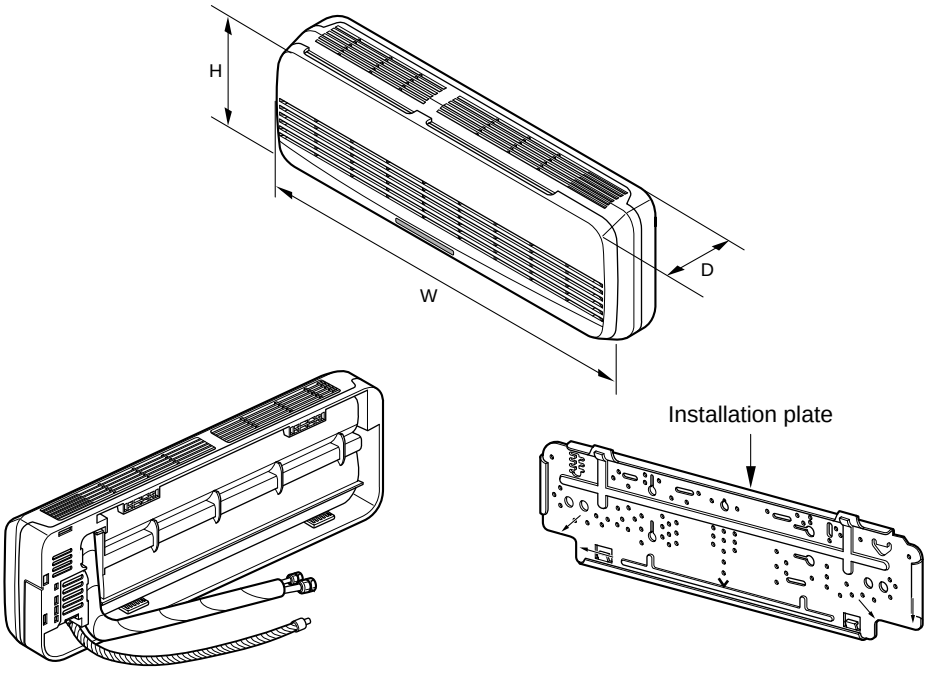
## Heating

| Operation | Indoor Unit Combination Index(k Btu/h) | | | | | Capacity (Btu/h) | | | | | Input (W) | Current (A) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | Total | Unit-A | Unit-B | Unit-C | Unit-D | Total | | |
| 1 UNIT | 12(S-RAC) | | | | 12 | 13000 | | | | 13000 | 1460 | 6.8 |
| | 12(DUCT) | | | | 12 | 12000 | | | | 12000 | 1460 | 6.8 |
| | 18(S-RAC) | | | | 18 | 18000 | | | | 18000 | 2190 | 10.2 |
| | 18(DUCT) | | | | 18 | 18000 | | | | 18000 | 2190 | 10.2 |
| | 24(S-RAC) | | | | 24 | 22000 | | | | 22000 | 2600 | 12.1 |
| | 24(DUCT) | | | | 24 | 24000 | | | | 24000 | 2600 | 12.1 |
| | | | | 24(S-RAC) | 24 | | | | 22000 | 22000 | 2600 | 12.1 |
| | | | | 24(DUCT) | 24 | | | | 24000 | 24000 | 2600 | 12.1 |
| 2 UNIT | 12(S-RAC) | 12(S-RAC) | | | 24 | 12500 | 12500 | | | 25000 | 2760 | 12.6 |
| | 12(DUCT) | 12(DUCT) | | | 24 | 12000 | 12000 | | | 24000 | 2760 | 12.6 |
| | 12(S-RAC) | 24(S-RAC) | | | 36 | 13000 | 22000 | | | 35000 | 4060 | 18.9 |
| | 12(DUCT) | 24(DUCT) | | | 36 | 12000 | 24000 | | | 36000 | 4060 | 18.9 |
| | 18(S-RAC) | 18(S-RAC) | | | 36 | 18000 | 18000 | | | 36000 | 4060 | 18.9 |
| | 18(DUCT) | 18(DUCT) | | | 36 | 18000 | 18000 | | | 36000 | 4060 | 18.9 |
| | 18(S-RAC) | | | 24(S-RAC) | 42 | 18000 | | | 22000 | 40000 | 4740 | 22.1 |
| | 18(DUCT) | | | 24(DUCT) | 42 | 18000 | | | 24000 | 42000 | 4740 | 22.1 |
| | 24(S-RAC) | | | 24(S-RAC) | 48 | 22000 | | | 22000 | 44000 | 5360 | 24.7 |
| | 24(DUCT) | | | 24(DUCT) | 48 | 24000 | | | 24000 | 48000 | 5360 | 24.7 |
| 3 UNIT | 12(S-RAC) | 12(S-RAC) | 12(S-RAC) | | 36 | 12500 | 12500 | 12500 | | 37500 | 4060 | 18.9 |
| | 12(DUCT) | 12(DUCT) | 12(DUCT) | | 36 | 12000 | 12000 | 12000 | | 36000 | 4060 | 18.9 |
| | 12(S-RAC) | 12(S-RAC) | | 24(S-RAC) | 48 | 12500 | 12500 | | 22000 | 47000 | 5360 | 24.7 |
| | 12(DUCT) | 12(DUCT) | | 24(DUCT) | 48 | 12000 | 12000 | | 24000 | 48000 | 5360 | 24.7 |
| | 12(S-RAC) | 18(S-RAC) | | 24(S-RAC) | 54 | 12500 | 18000 | | 22000 | 52500 | 6030 | 27.8 |
| | 12(DUCT) | 18(DUCT) | | 24(DUCT) | 54 | 12000 | 18000 | | 24000 | 54000 | 6030 | 27.8 |
| | 18(S-RAC) | 18(S-RAC) | | 24(S-RAC) | 60 | 18000 | 18000 | | 22000 | 58000 | 6700 | 30.9 |
| | 18(DUCT) | 18(DUCT) | | 24(DUCT) | 60 | 18000 | 18000 | | 24000 | 60000 | 6700 | 30.9 |
| | 12(S-RAC) | 24(S-RAC) | | 24(S-RAC) | 60 | 12500 | 22000 | | 22000 | 56500 | 6700 | 30.9 |
| | 12(DUCT) | 24(DUCT) | | 24(DUCT) | 60 | 12000 | 24000 | | 24000 | 60000 | 6700 | 30.9 |
| 4 UNIT | 12(S-RAC) | 12(S-RAC) | 12(S-RAC) | 24(S-RAC) | 60 | 12500 | 12500 | 13000 | 22000 | 60000 | 6700 | 30.9 |
| | 12(DUCT) | 12(DUCT) | 12(DUCT) | 24(DUCT) | 60 | 12000 | 12000 | 12000 | 24000 | 60000 | 6700 | 30.9 |

# Dimensions

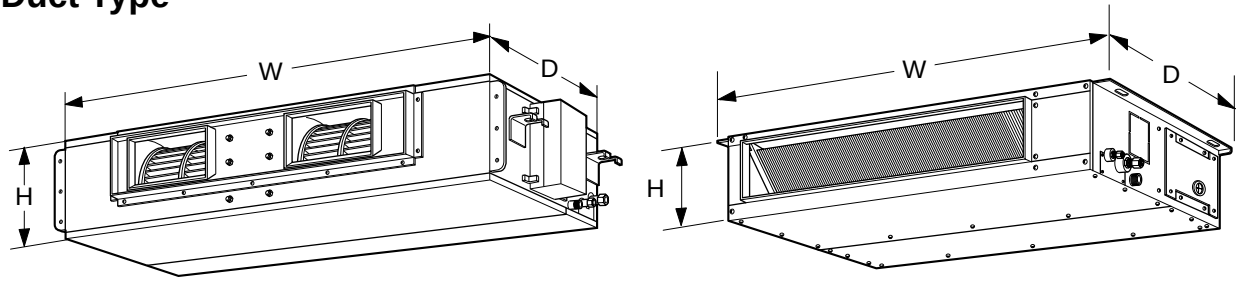
## 1. Indoor Unit

### 1. Split Type




| DIM \ MODEL | SR 12K | ST 18K/24K |
|---|---|---|
| W(mm) | 900 | 1080 |
| H(mm) | 285 | 314 |
| D(mm) | 156 | 182 |

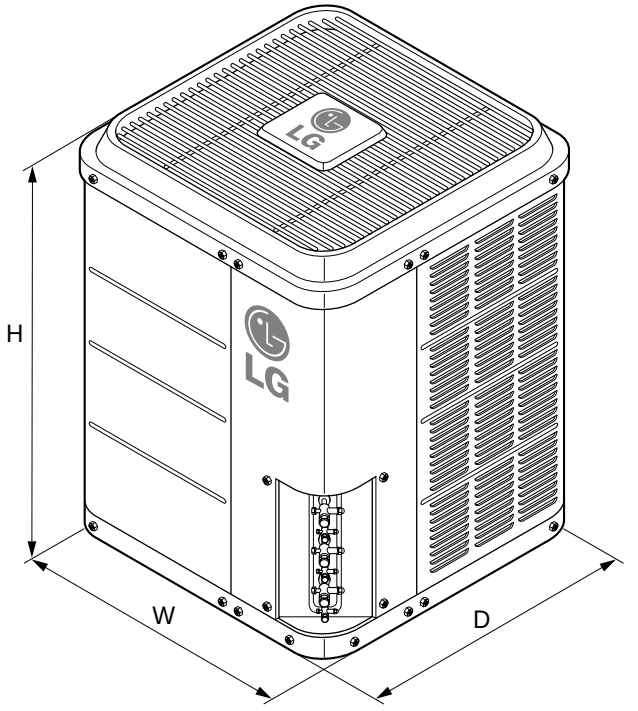
### 2. Duct Type



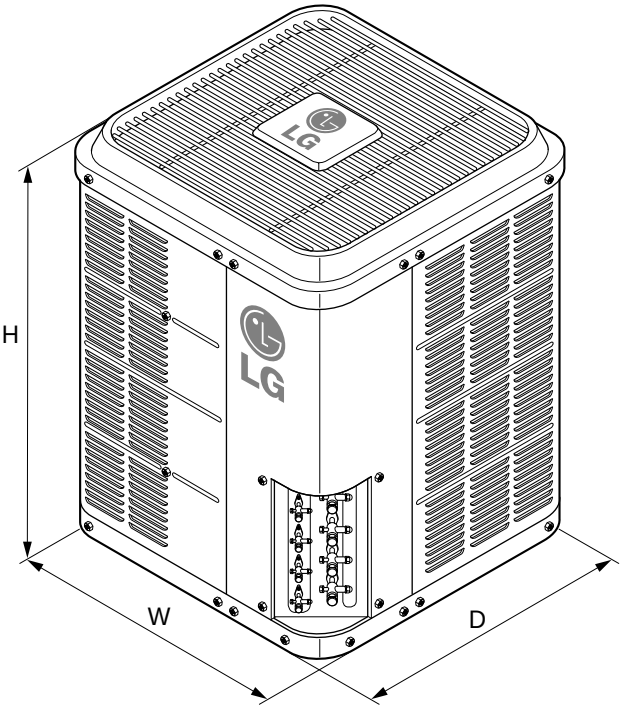

**BH** **BT/BT1**

| DIM \ MODEL | BT 12K | BT1 18K | BH 24K |
|---|---|---|---|
| W(mm) | 708 | 1060 | 880 |
| H(mm) | 230 | 230 | 260 |
| D(mm) | 357 | 357 | 450 |

## 2. Outdoor Unit




**48K**

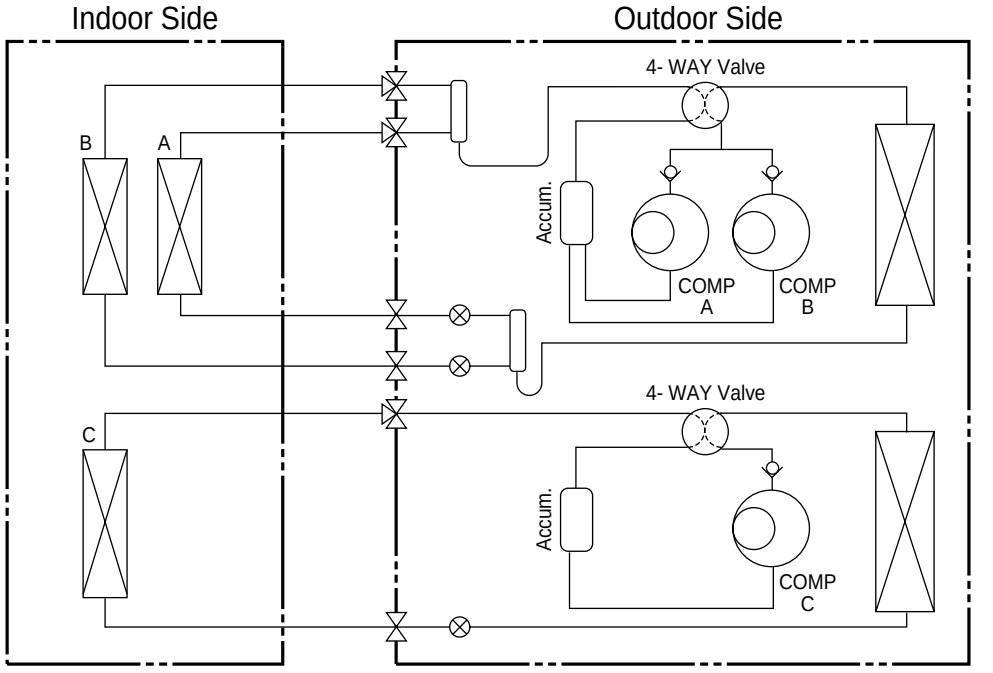



**60K**

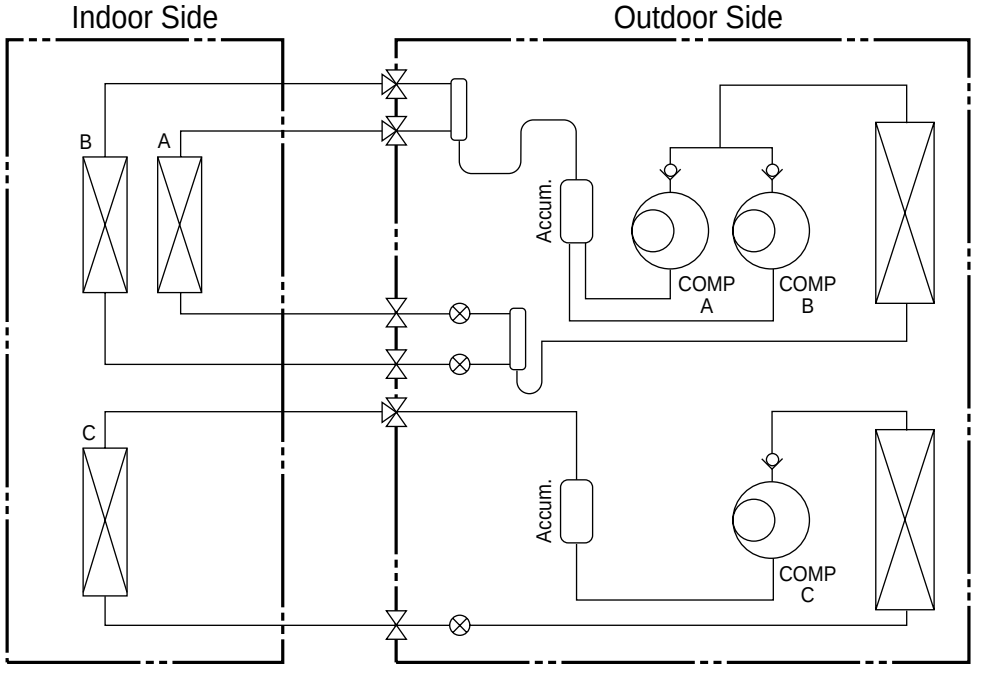
| DIM \ MODEL | | 48K/60K Btu/h |
|---|---|---|
| W | mm | 711 |
| H | mm | 828 |
| D | mm | 687 |

# Refrigeration Cycle Diagram

## 1. L3UH482FA0



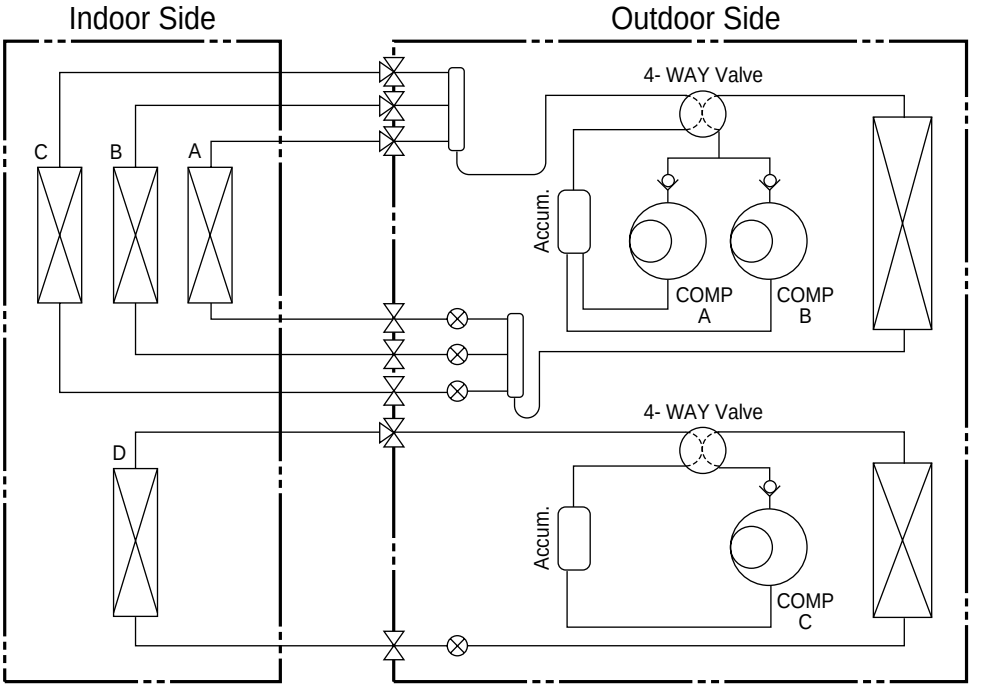

## 2. L3UC482FA0



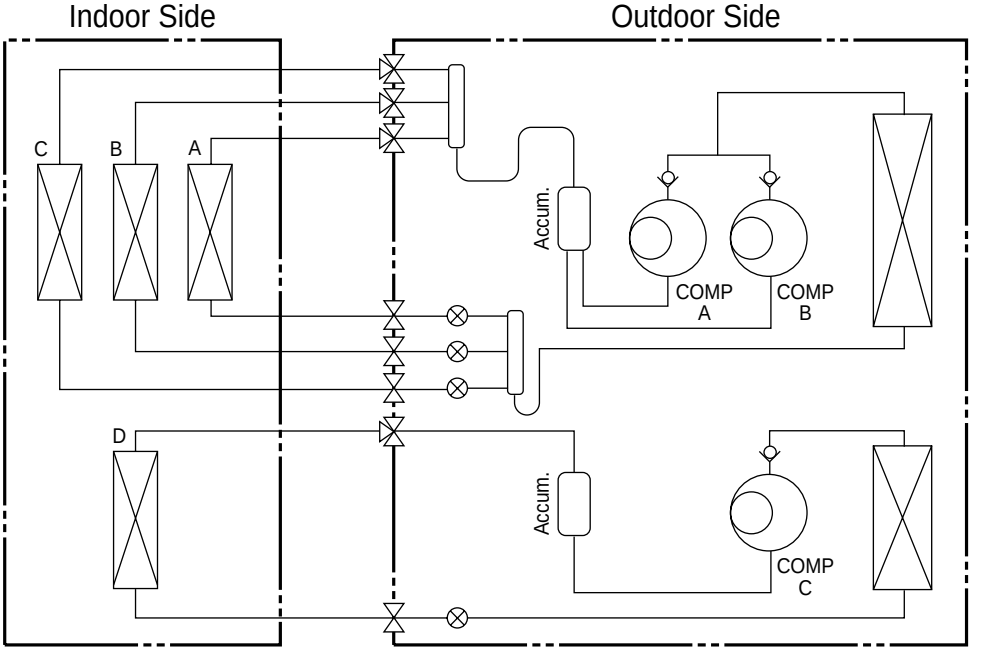

ex)

| | | | |
|---|---|---|---|
| | Capillary | | 3-Way Valve |
| | Solenoid Valve | | 2-Way Valve |
| | L.E.V | | |

## 3. A4UH602FA0




## 4. A4UC602FA0




ex)

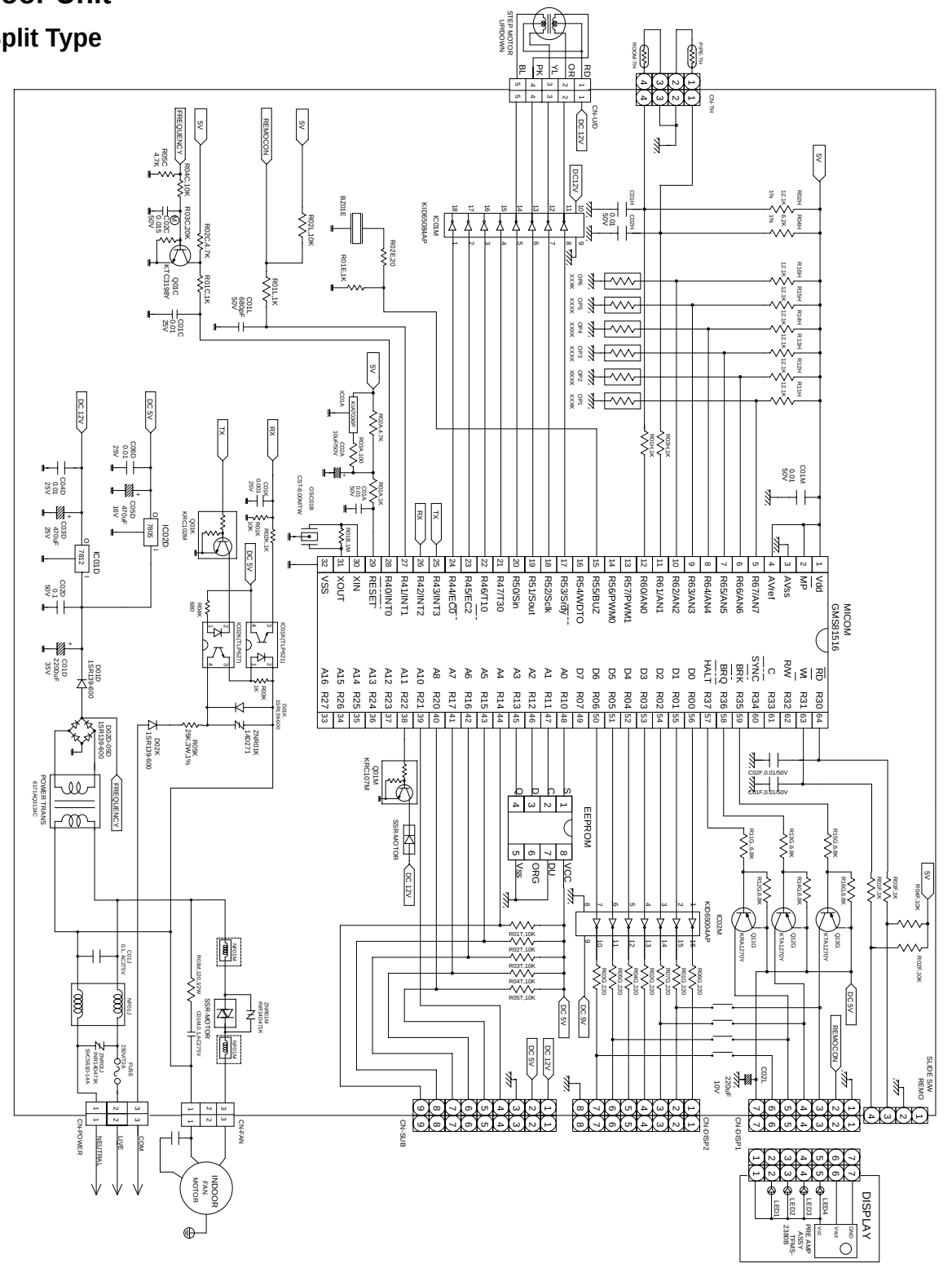
| | | | |
|---|---|---|---|
| | Capillary | | 3-Way Valve |
| | Solenoid Valve | | 2-Way Valve |
| | L.E.V | | |

# Schematic Diagram

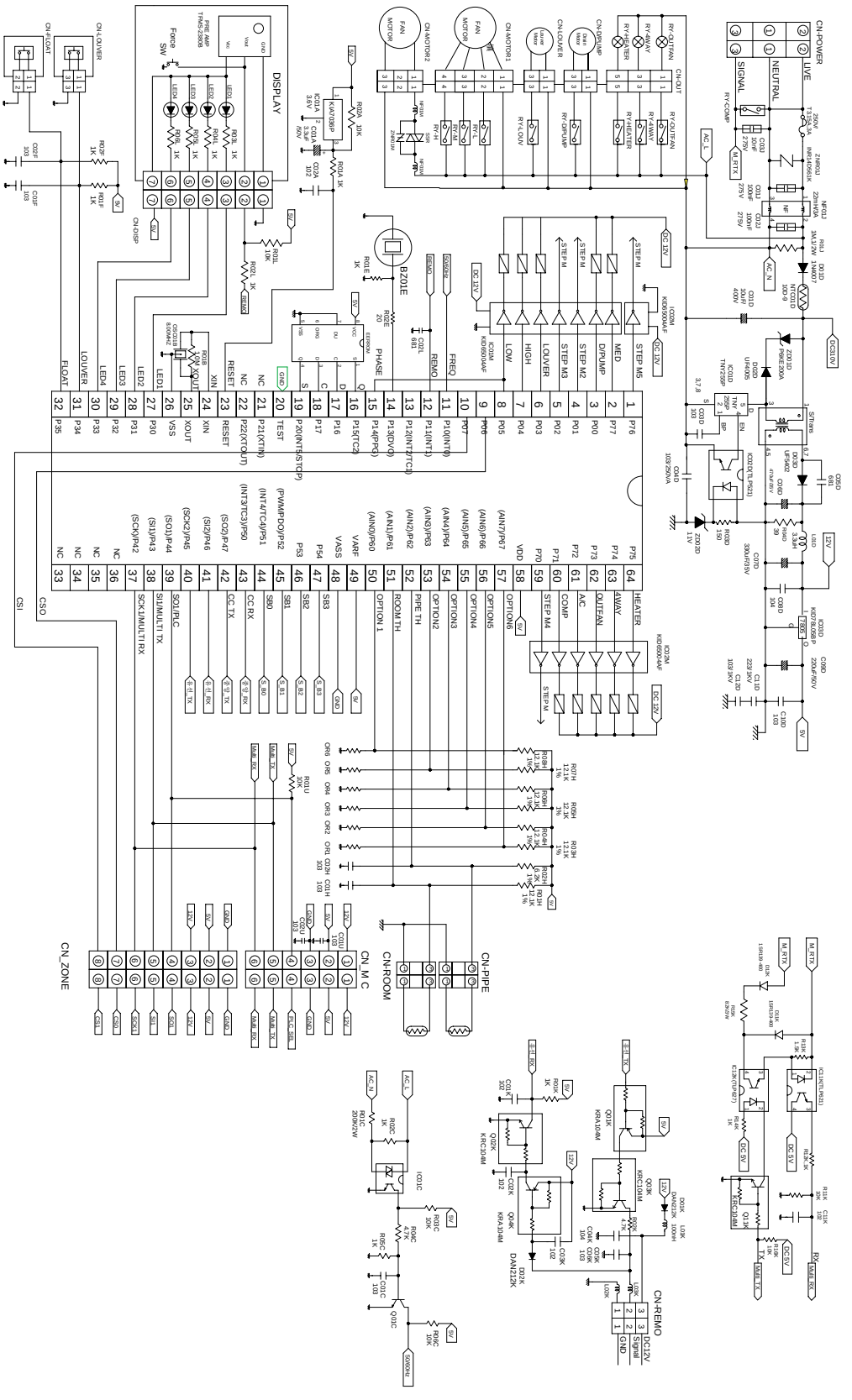
## Electronic Control Device

### 1. Indoor Unit

#### 1) Split Type

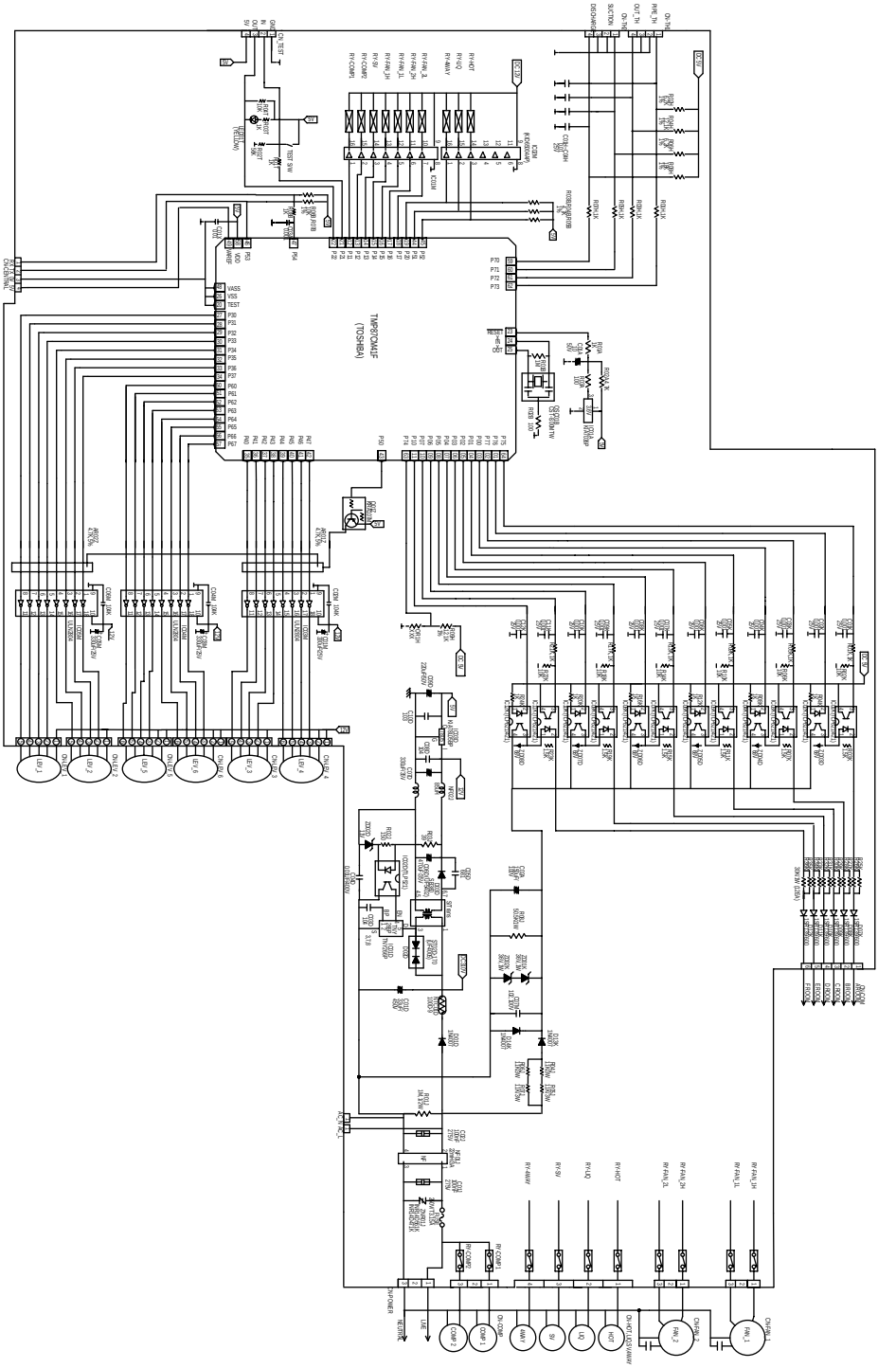


## 2) Duct Type



## 2. Outdoor Unit

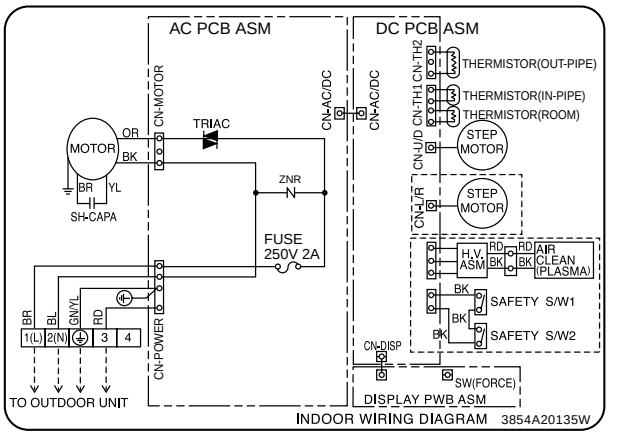
### L3UC482FA0, L3UH482FA0, L4UC602FA0, L4UH602FA0



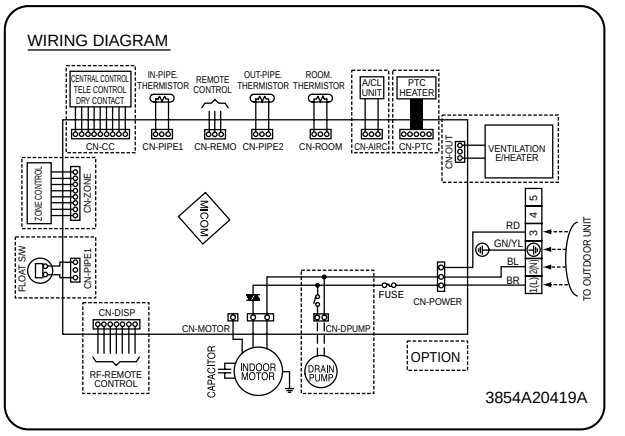
# Wiring Diagram

## 1. Indoor Unit

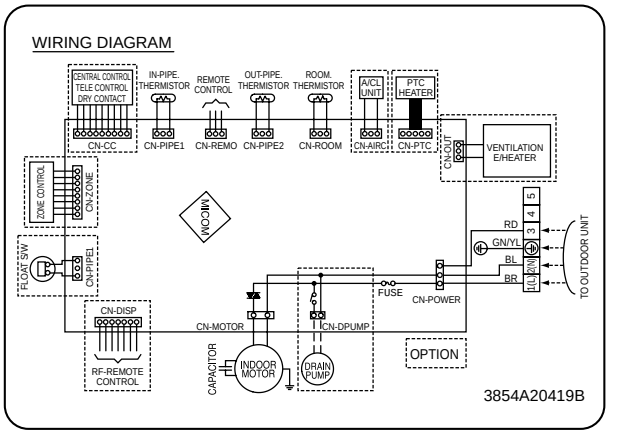
### Split Type Indoor Unit




### Duct Type Indoor Unit - BT chassis

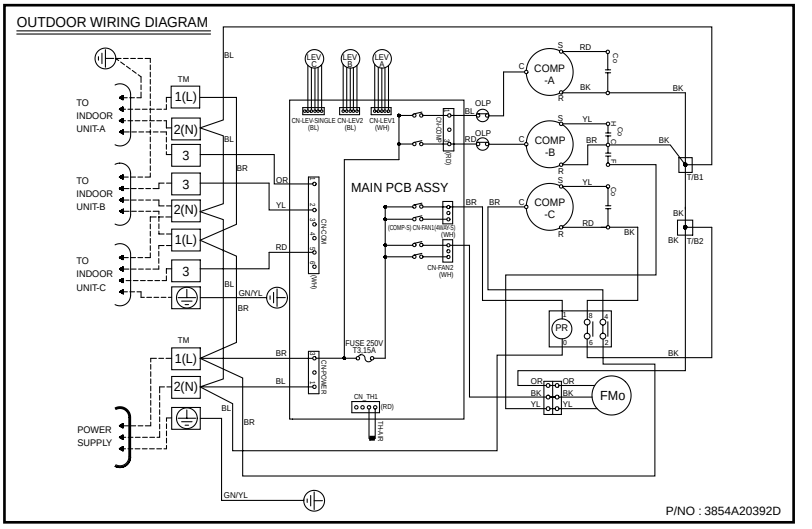



### Duct Type Indoor Unit - BH chassis

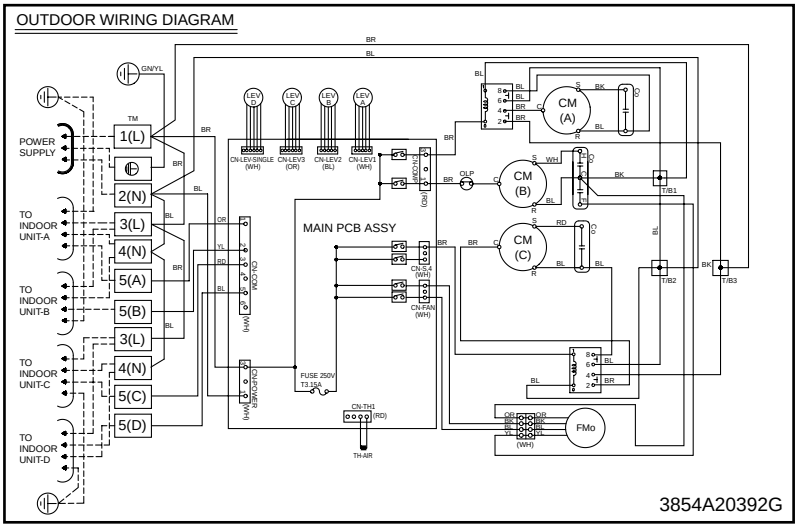


# 2. Outdoor Unit

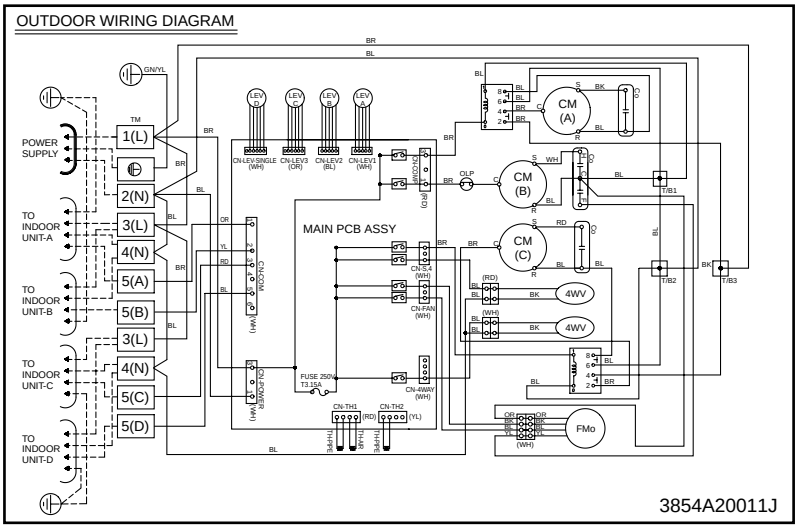
## • L3UC482FA0, L3UH482FA0




## • L4UC602FA0




## • L4UH602FA0



# Functions

## Split Type Indoor Unit

### Operation ON/OFF by Remote controller

### Sensing the Room Temperature

• Room temperature sensor. (THERMISTOR)

### Room temperature control

• Maintains the room temperature in accordance with the Setting Temp.

### Starting Current Control

• Indoor fan is delayed for 5 sec at the starting.

### Time Delay Safety Control

• Restarting is inhibited for approx. 3 minutes.

### Indoor Fan Speed Control

• High, Med, Low, CHAOS, JET COOL

### Operation indication Lamps (LED)

• Refer to 26 page signal receptor.

### Soft Dry Operation Mode

• Intermittent operation of fan at low speed.

### Sleep Mode Auto Control

• The fan is switched to low(Cooling), med(Heating) speed.
• The unit will be stopped after 1, 2, 3, 4, 5, 6, 7 hours.

### Natural Air Control by CHAOS Logic

• The fan is switched to intermittent or irregular operation
• The fan speed is automatically switched from high to low speed.

### Airflow Direction Control

• The louver can be set at the desired position or swing up and down automatically.

### PLASMA

• The function will be operated while in any operation mode with selecting the function.
• The function is to be stopped while it is operating with selecting the function.

### Defrost(Deice) control (Heating)

• Both the indoor and outdoor fan stops during defrosting.

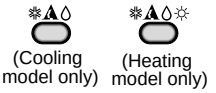
### Hot-start Control (Heating)

• The indoor fan stops until the evaporator pipe temperature will be reached at 28°C.

## Split Type Remote Controller

### Operation ON/OFF

### Operation Mode Selection



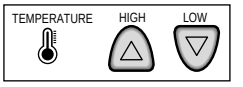

Cooling Operation Mode.( ❄ ) Auto Operation Mode.( A )
Healthy Dehumidification Operation Mode.( ♢ ) Heating Operation Mode.( ☼ )

### Fan Speed Selection

### Room, Temperature Display

: (High: 39°C ◄——► LOW : 11°C)

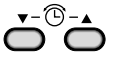
### Temperature Setting



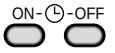

Cooling — Down to 18°C / Up to 30°C
Heating — Down to 16°C / Up to 30°C

### JET COOL

### Setting the Time or Timer



### Timer Selection




: OFF, ON, OFF ◄——► ON

### Timer Setting

### Timer Cancel

: Cancel Sleep Mode, Timer ON or Timer OFF

### Sleep Operation

: 1, 2, 3, 4, 5, 6, 7, Off Timer

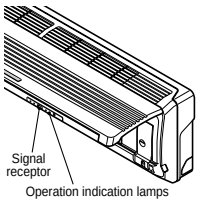
### Airflow Direction Control

### Fan Operation Mode

: Fan Operates without cooling or heating.

### Reset

# Signal Receptor




Receives the signals from the remote controller.(Signal receiving sound: two short beeps or one long beep.)

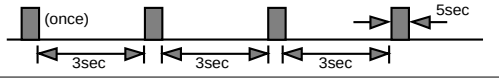
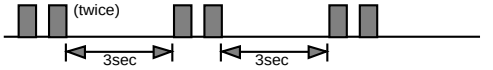
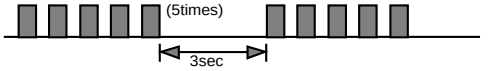
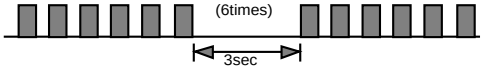
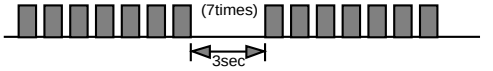
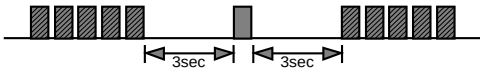
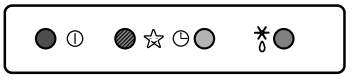
**Operation Indication Lamps**

| | | |
|---|---|---|
| ⏻ | On/Off | : Lights up during the system operation. |
| ☆ | Sleep Mode | : Lights up during Sleep Mode Auto operation. |
| ◷ | Timer | : Lights up during Timer operation. |
| ✳ | Defrost Mode | : Lights up during Defrost Mode or Hot Start operation (Heat pump model only) |
| OUT DOOR | OUTDOOR UNIT OPERATION | : Lights up during outdoor unit operation. (Cooling model only) |

# Self-diagnosis Function

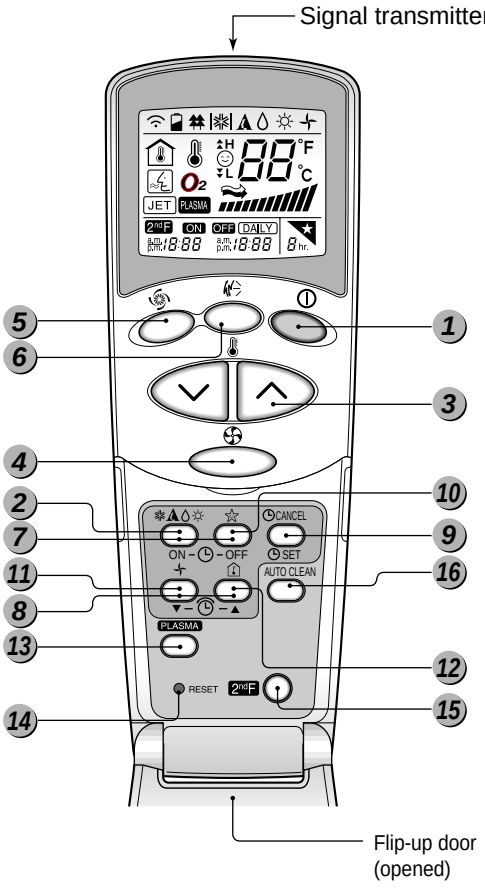
■ **Error Indicator**

- The function is to self-diagnoisis airconditioner and express the troubles identifically if there is any trouble.
- Error mark is ON/OFF for the operation LED of evaporator body in the same manner as the following table.
- If more than two troubles occur simultaneously, primarily the highest trouble fo error code is expressed.
- After error occurrence, if error is released, error LED is also released simultaneously.
- To operate again on the occurrence of error code, be sure to turn off the power and then turn on.
- Having or not of error code is different from Model.

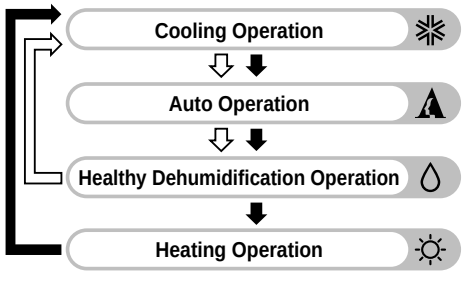
| Error Code | Error LED (Indoor body operation LED) | Error contents | SVC check point |
|---|---|---|---|
| 1 |   | • Indoor air temperature thermistor open/short. | • Indoor air TH ass'y check |
| 2 |   | • Indoor inlet pipe temperature thermistor open/short. | • Indoor inlet pipe TH ass'y check |
| 5 |   | • Poor communication | • Communication line/circuit |
| 6 |   | • Indoor outlet pipe temperature thermistor open/shor | • Indoor outlet pipe TH ass'y check |
| 7 |   | • Defferent Operation (Simultaneous operation of cooling and heating. | • Operate indoor units only heating or cooling mode. |
| 9 | | • Indoor EEP ROM data (Art type only) | • Replace main PCB DC ASM |
| 44 | | • Outdoor air temperature thermistor open/short | • Outdoor air TH ass'y check |
| 45 | | • Outdoor pipe themperature thermistor open/short | • Outdoor pipe TH ass'y check |
| 51 |   | • Overload combination | • Indoor unit combination check (Refer to Max. capacity) |
| |  ☆ : ten digits ⏻ : one digits | | |

# Remote Control Operation

*The Remote Controller transmits the signals to the system.*




**Operation Mode**




• Cooling Model(⇩), Heat Pump Model(⬇)

**1** **START/STOP BUTTON**
Operation starts when this button is pressed and stops when the button is pressed again.

**2** **OPERATION MODE SELECTION BUTTON**
Used to select the operation mode.

(Heat Pump) (Cooling Only)

**3** **ROOM TEMPERATURE SETTING BUTTONS**
Used to select the room temperature.

**4** **INDOOR FAN SPEED SELECTOR**
Used to select fan speed in four steps low, medium, high and CHAOS.

**5** **JET COOL**
Used to start or stop the speed cooling/heating. (Speed cooling/heating operates super high fan speed.)

**6** **CHAOS SWING BUTTON**
Used to stop or start louver movement and set the desired up/down airflow direction.

**7** **ON/OFF TIMER BUTTONS**
Used to set the time of starting and stopping operation.

**8** **TIME SETTING BUTTONS**
Used to adjust the time.

**9** **TIMER SET/CANCEL BUTTON**
Used to set the timer when the desired time is obtained and to cancel the Timer operation.

**10** **SLEEP MODE AUTO BUTTON**
Used to set Sleep Mode Auto operation.

**11** **AIR CIRCULATION BUTTON**
Used to circulate the room air without cooling or heating.

**12** **ROOM TEMPERATURE CHECKING BUTTON**
Used to check the room temperature.

**13** **PLASMA(OPTIONAL)**
Used to start or stop the plasma-purification function.

**14** **RESET BUTTON**
Initialize remote controller.

**15** **2nd F Button**
Used prior to using modes printed in blue at the bottom of buttons.

**16** **AUTO CLEAN (Art type only)**
Used to set Auto Clean mode.

## Duct Type Remote Controller

### Operation ON/OFF

### Operation Mode Selection

(Cooling model only)

(Heating model only)

Cooling Operation Mode ( ❄ )
Heating Operation Mode ( ☼ )
Soft Dry Operation Mode ( 💧 )
Auto Operation Mode ( ◭ )

### Fan Speed Selection

**LO** (Low) **MED** (Med) **HI** (High)

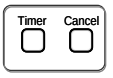
### Room Temperature Display

: High:39°C ↔ LOW:11°C

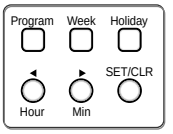
### Temperature Setting

Cooling [ Down to 18°C / Up to 30°C ]
Heating [ Down to 16°C / Up to 30°C ]

### Setting the Timer



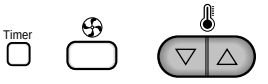

### Weekly Program



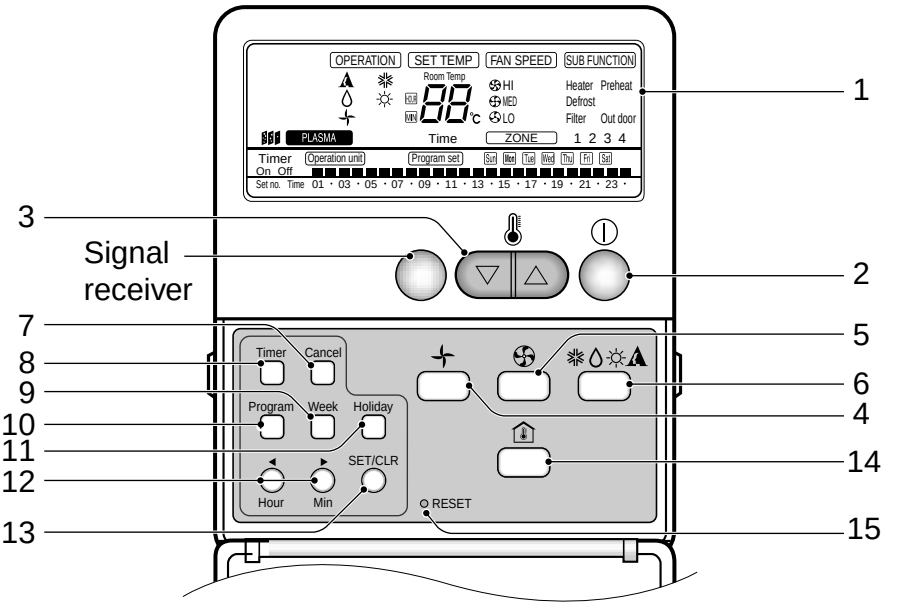

### Fan Operation Mode

: Fan Operates without cooling & heating

### Phase Control Setting



## Remote Control Operation




**1** **Operation display**
Displays the operation conditions.

**2** **On/Off Button**
Operation starts when this button is pressed, and stops when the button is pressed again.

**3** **Set Temperature Button**
Used to set the temperature when the desired temperature is obtained.

**4** **FAN Operation Button**
Used to circulate room air without cooling or heating.

**5** **Fan Speed Button**
Used to set desired fan speed.

**6** **Operation Mode Selection Button**
Used to select the operation mode.
- Auto Operation Mode.
- Cooling Operation Mode.
- Soft Dry Operation Mode.
- Heating Operation Mode.(except cooling model)

**7** **Timer Cancel Button**
Used to cancel the timer.

**8** **Timer Set Button**
Used to set the timer when the desired time is obtained.

**9** **Week Button**
Used to set a day of the week.

**10** **Program Button**
Used to set the weekly timer.

**11** **Holiday Button**
Used to set a holiday of the week.

**12** **Time Set Button**
Used to set the time of the day and change the time in the weekly timer Function.

**13** **Set and Clear Button**
Used to set and clear the weekly timer.

**14** **Room Temperature Checking Button**
Used to check the room temperature.

**15** **Reset Button**
Used to set the current time and clear the setting time.

## Outdoor Unit

### Two Comp algorithm

• Inverter Comp is first priority and then Constant Comp is turning on responding to load condtion.

### Operating Frequency

• Inverter Frequency varies considering condition such as room temp,outdoor temp, operating room number,Temp gap between room temp and set temp and so on.

### LEV Control

• LEV pulse is modulated to keep constant superheat or subcooling.

### Out door Fan Control

• Outdoor fan operates at High/Low or Off to respond to the load condition.

### R/Valve Control

• Convert R/Valve to change cooling to heating, heating to cooling.

### Comp Pre-Heat Logic

• Checking outdoor temp, D-Pipe temp,Heat Sink Temp, operate compressor at low frequency upto 5min to preheat oil.

### Defrost Function

• After 35 min heating operation, check the defrost condition and if outdoor pipe temp is below -6°C and released from deice operation in case outdoor pipe temp is over 15°C or 7 min cooing mode.
• To deice outdoor heat exchanger in low temp condtion, convert operating mode from heating to cooling, in this case, indoor and outdoor fan is off.

### Oil Return System

• In heating operation, every 3 hours, changes from heating to cooling for 5 min to return the oil in piping to compressor.

### IPM Over Heat Protection

• To protect IPM overheat, down comp Hz.

### Comp Overload Protection

• To protect comp from being overload, down comp Hz.

### Low Pressure Protection

• If cylce pressure is low (around 0.3kgf/cm2), turn off comp and outdoor fan.

# Operation Details

## Main Unit Function

**1) C/O Model**

**Operation Indicator**

- On while in appliance operation, off while in appliance pause
- Flashing while in disconnection or short in Thermistor (3 sec off / 0.5 sec on)

**Sleep Timer Indicator**

- On while in sleep timer mode, off when sleep timer cancel or appliance operation pause

**Timer Indicator**

- On while in timer mode (on/off), off when timer mode is completed or canceled.

**Comp. Running Incidator**

- While in appliance operation, on while in outdoor unit compressor running, off while in compressor off

**2) H/P Model**

**Operation Indicator**

- On while in appliance operation, off while in appliance pause
- Flashing while in disconnection or short in Thermistor (3 sec off / 0.5 sec on)

**Sleep Timer Indicator**

- On while in sleep timer mode, off when sleep timer cancel or appliance operation pause

**Timer Indicator**

- On while in timer mode (on/off), off when timer mode is completed or canceled

**Defrost Indicator**

- Off except when hot start during heating mode operation or while in defrost control

### ■ Cooling Mode Operation

- When the intake air temperature reaches 0.5°C below the setting temp, the compressor and the outdoor fan stop.
- When it reaches 0.5°C above the setting temp, they start to operate again.
  Compressor ON Temp ➲ Setting Temp+0.5°C
  Compressor OFF Temp ➲ Setting Temp-0.5°C
- While in compressor running, operating with the airflow speed set by the remote control. While in compressor not running, operating with the low airflow speed regardless of the setting.

### ■ Healthy Dehumidification Mode

- When the dehumidification operation input by the remote control is received, the intake air temperature is detected and the setting temp is automatically set according to the intake air temperature.
  26°C ≤ Intake Air Temp ➲ 25°C
  24°C ≤ Intake Intake Air Temp<26°C ➲ Intake Air Temp-1°C
  18°C ≤ Intake Intake Air Temp<24°C ➲ Intake Air Temp-0.5°C
  Intake Air Temp<18°C ➲ 18°C

- While in compressor off, the indoor fan repeats low airflow speed and pause.
- While the intake air temp is between compressor on temp. and compressor off temp., 10-min dehumidification operation and 4-min compressor off repeat.
  Compressor ON Temp. ➲ Setting Temp+0.5°C
  Compressor OFF Temp. ➲ Setting Temp-0.5°C
- In 10-min dehumidification operation, the indoor fan operates with the low airflow speed.

## ■ Heating Mode Operation(H/P model)

- When the intake air temp reaches +3°…above the setting temp, the compressor is turned off. When below the setting temp, the compressor is turned on.
  Compressor ON Temp. ➲ Setting Temp.
  Compressor OFF Temp. ➲ Setting Temp.+3°C
- While in compressor on, the indoor fan is off when the indoor pipe temp. is below 20°C, when above 28°C , it operates with the low or setting airflow speed. When the indoor pipe temp is between 20°C and 28°C, it operates with Super-Low(while in sleep mode, with the medium airflow speed).
- While in compressor off, the indoor fan is off when the indoor pipe temp is below 33°C, when above 35°C , it operates with the low airflow speed.
- If overloaded while in heating mode operation, in order to prevent the compressor from OLP operation, the outdoor fan is turned on/off according to the indoor pipe temp.
- While in defrost control, both of the indoor and outdoor fans are turned off.

## ■ Defrost Control(H/P model)

- Defrost operation is controlled by timer and sensing temperature of outdoor pipe.
- The first defrost starts only when the outdoor pipe temperature falls below -6°C after 60 minutes passed from starting of heating operation and more than 10 minutes operation of compressor.
- Defrost ends after 12 minutes passed from starting of defrost operation or after the outdoor fan operates within max. 2 minutes 30 seconds when the outdoor pipe temperature rises over 12°C even it before 12 minutes.
- The second defrost starts only when the outdoor pipe temperature falls below -6°C after 60 minutes passed from ending of the first defrost and more than 10 minutes operation of compressor.

## ■ Fuzzy Operation (C/O Model)

- According to the temperature set by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.
  Compressor ON Temp ➲ Setting Temp + 0.5°C
  Compressor OFF Temp ➲ Setting Temp + 0.5°C
- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.
  26°C ≤ Intake Air Temp ➲ 25°C
  24°C ≤ Intake Air Temp < 26°C ➲ Intake Air Temp + 1°C
  22°C ≤ Intake Air Temp < 24°C ➲ Intake Air Temp + 0.5°C
  18°C ≤ Intake Air Temp < 22°C ➲ Intake Air Temp
  Intake Air Temp<18°C ➲ 18°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is automatically selected according to the temperature.

## ■ Fuzzy Operation (H/P Model)

- When any of operation mode is not selected like the moment of the power on or when 3 hrs has passed since the operation off, the operation mode is selected.
- When determining the operation mode, the compressor, the outdoor fan, and the 4 way valve are off and only the indoor fan is operated for 15 seconds. Then an operation mode is selected according to the intake air temp at that moment as follows.
  24°C ≤ Inatake Air Temp ➲ Fuzzy Operation for Cooling
  21°C ≤ Inatake Air Temp<24°C ➲ Fuzzy Operation for Dehumidification
  Inatake Air Temp<21°C ➲ Fuzzy Operation for Heating
- If any of the operation modes among cooling / dehumidification / heating mode operations is carried out for 10 sec or longer before Fuzzy operation, the mode before Fuzzy operation is operated.

#### 1) Fuzzy Operation for Cooling

- According to the setting temperature selected by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.
  Compressor ON Temp ➲ Setting Temp +0.5°C
  Compressor OFF Temp ➲ Setting Temp + 0.5°C
- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.
  26°C≤ Intake Air Temp ➲ 25°C
  24°C≤ Intake Air Temp<26°C ➲ Intake Air Temp + 1°C
  22°C≤ Intake Air Temp<24°C ➲ Intake Air Temp + 0.5°C
  18°C≤ Intake Air Temp<22°C ➲ Intake Air Temp
  Intake Air Temp<18°C ➲ 18°C
- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is automatically selected according to the temperature.

**2) Fuzzy Operation for Dehumidification**

- According to the setting temperature selected by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.

  Compressor ON Temp ➲ Setting Temp + 0.5°C
  Compressor OFF Temp ➲ Setting Temp+0.5°C
- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

  26°C ≤ Intake Air Temp ➲ 25°C
  24°C ≤ Intake Air Temp<26°C ➲ Intake Air Temp+1°C
  22°C ≤ Intake Air Temp<24°C ➲ Intake Air Temp+0.5°C
  18°C ≤ Intake Air Temp<22°C ➲ Intake Air Temp
  Intake Air Temp<18°C ➲ 18°C
- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan repeats the low airflow speed or pause as in dehumidification operation.

**3) Fuzzy Operation for Heating**

- According to the setting temperature selected by Fuzzy rule, when the intake air temp is 3°C or more above the setting temp, the compressor is turned off. When below the setting temp, the compressor is turned on.

  Compressor ON Temp ➲ Setting Temp
  Compressor OFF Temp ➲ Setting Temp + 3°C
- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

  20°C≤Intake Air Temp ➲ Intake Air Temp + 0.5°C
  Intake Air Temp<20°C ➲ 20°C
- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is set to the high or the medium according to the intake air temperature and the setting temperature.

## ■ Airflow Speed Selection

- The airflow speed of the indoor fan is set to high, medium, low, or chaos (auto) by the input of the airflow speed selection key on the remote control.

## ■ On-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance starts to operate.
- The timer LED is on when the on-timer is input. It is off when the time set by the timer is reached.
- If the appliance is operating at the time set by the timer, the operation continues.

## ■ Off-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance stops operating.
- The timer LED is on when the off-timer is input. It is off when the time set by the timer is reached.
- If the appliance is on pause at the time set by the timer, the pause continues.

## ■ Off-Timer ↔ On-Timer Operation

- When the set time is reached after the on/off time is input by the remote control, the on/off-timer operation is carried out according to the set time.

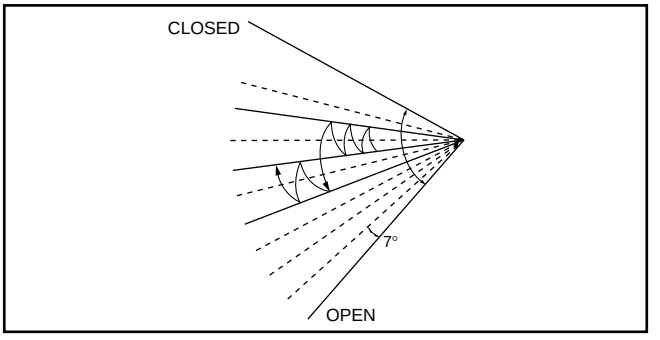
## ■ Sleep Timer Operation

- When the sleep time is reached after <1,2,3,4,5,6,7,0(cancel) hr> is input by the remote control while in appliance operation, the operation of the appliance stops.
- While the appliance is on pause, the sleep timer mode cannot be input.
- While in cooling mode operation, 30 min later since the start of the sleep timer, the setting temperature increases by 1°C. After another 30 min elapse, it increases by 1°C again.
- When the sleep timer mode is input while in cooling cycle mode, the airflow speed of the indoor fan is set to the low.
- When the sleep timer mode is input while in heating cycle mode, the airflow speed of the indoor fan is set to the medium.

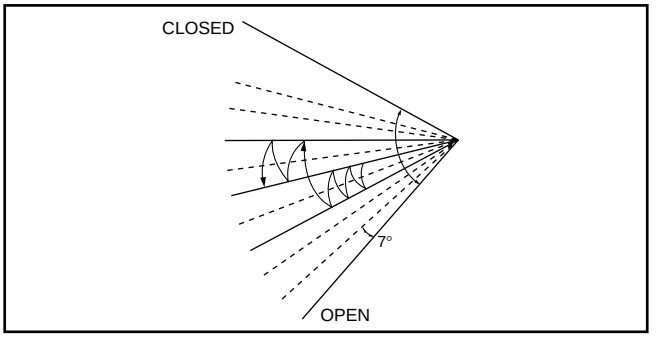
## ■ Chaos Swing Mode

- By the Chaos Swing key input, the upper/lower vane automatically operates with the Chaos Swing or they are fixed to the desired direction.
- While in Chaos Swing mode, the angles of cooling and heating cycle operations are different.

**< Cooling Mode >**




**< Heating Mode >**




## ■ Chaos Natural Wind Mode

- When the Chaos Natural Wind mode is selected and then operated, the high, medium, or low speed of the airflow mode is operated for 2~15 sec. randomly by the Chaos Simulation.

## ■ Jet Cool Mode Operation (C/O Model)

- If the Jet Cool key is input at any operation mode while in appliance operation, the Jet Cool mode operates.
- In the Jet Cool mode, the indoor fan is operated at super-high speed for 30 min at cooling mode operation.
- In the Jet Cool mode operation, the room temperature is controlled to the setting temperature, 18°C
- When the sleep timer mode is input while in the Jet Cool mode operation, the Jet Cool mode has the priority.
- When the Jet Cool key is input, the upper/lower vanes are reset to those of the initial cooling mode and then operated in order that the air outflow could reach further.

## ■ Jet Cool Mode Operation (H/P Model)

- While in heating mode or Fuzzy operation, the Jet Cool key cannot be input. When it is input while in the other mode operation (cooling, dehumidification, ventilation), the Jet Cool mode is operated.
- In the Jet Cool mode, the indoor fan is operated at super-high speed for 30 min at cooling mode operation.
- In the Jet Cool mode operation, the room temperature is controlled to the setting temperature, 18°C.
- When the sleep timer mode is input while in the Jet Cool mode operation, the Jet Cool mode has the priority.
- When the Jet Cool key is input, the upper/lower vanes are reset to those of the initial cooling mode and then operated in order that the air outflow could reach further.

## ■ Forced Operation

- Operation procedures when the remote control can't be used.
- The operation will be started if the power button is pressed.
- If you want to stop operation, re-press the button.

| | Cooling Model | Heat pump Model | | |
|---|---|---|---|---|
| | | Room Temp. ≥ 24°C | 21°C ≤ Room Temp. < 24°C | Room Temp. < 21°C |
| Operating mode | Cooling | Cooling | Healthy Dehumidification | Heating |
| Indoor FAN Speed | High | High | High | High |
| Setting Temperature | 22°C | 22°C | 23°C | 24°C |

- While in forced operation, the key input by the remote control has no effect and the buzzer sounds 10 times to indicate the forced operation.

## ■ Test operation

- During the TEST OPERATION, the unit operates in cooling mode at high speed fan, regardless of room temperature and resets in 18±1 minutes.
- During test operation, if remote controller signal is received, the unit operates as remote controller sets. If you want to use this operation, open the front panel upward and Press the power button let it be pressed for about 3 seconds.
- If you want to stop the operation, re-press the button.

## ■ Auto restart

- In case the power comes on again after a power failure, Auto Restarting Operation is the function to operate procedures automatically to the previous operating conditions.

## ■ Air Cleaner Operation

- When an air cleaner function is selected during Air Conditioner operation
  - Plasma air cleaner function will be operated while in any operation mode with selecting the function.
  - The function is to be stopped while it is operating with selecting the function.
- When an air cleaner function is selected during operation off
  - The function will be only operated.
- When inlet grille of air conditioner is opened during plasma operation, High Voltage Generator(H.V.B) is to be stopped. When inlet grille of air conditioner is closed during plasma operation, High Voltage Generator(H.V.B) will be operated again.

## ■ Remote Control Operation Mode

- When the remote control is selected by the slide switch on the main unit, the appliance operates according to the input by the remote control.

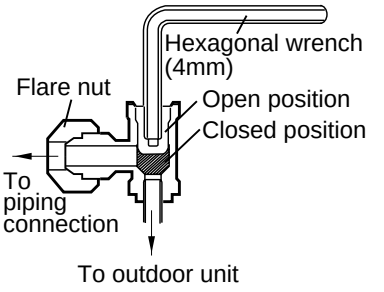
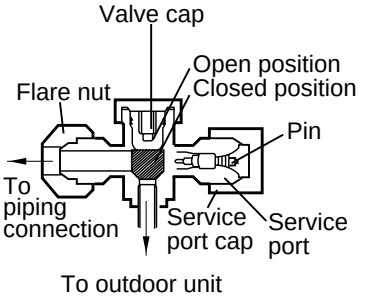
## ■ Protection of the evaporator pipe from frosting

- If the indoor pipe temp is below 0°C in 7 min. after the compressor operates without any pause while in cooling cycle operation mode, the compressor and the outdoor fan are turned off in order to protect the indoor evaporator pipe from frosting.
- When the indoor pipe temp is 7°C or higher after 3 min. pause of the compressor, the compressor and the outdoor fan is turned on according to the condition of the room temperature.

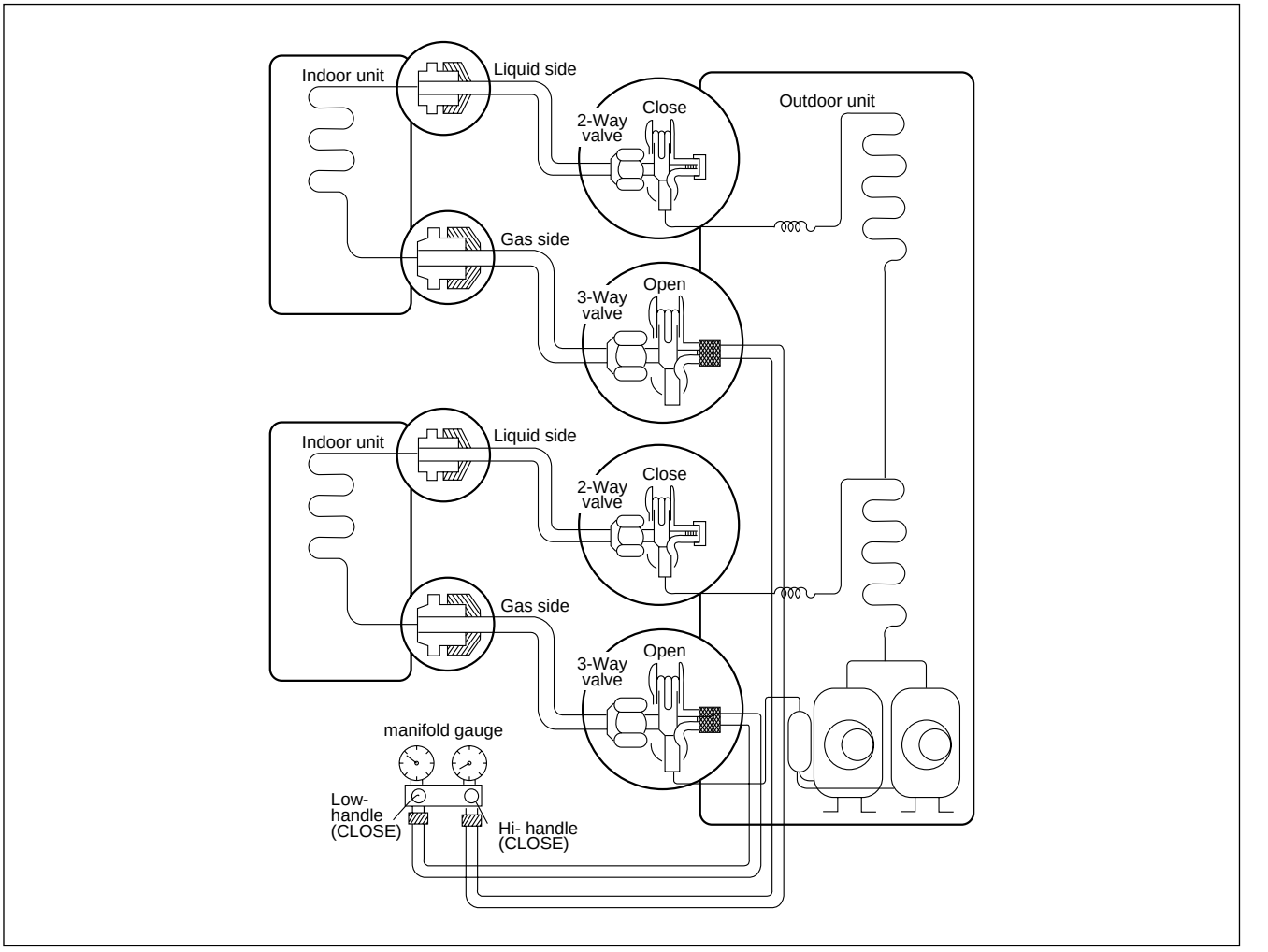
## ■ Buzzer Sounding Operation

- When the appliance-operation key is input by the remote control, the short "beep-beep-" sounds.
- When the appliance-pause key is input by the remote control, the long "beep—" sounds.
- When a key is input by the remote control while the slide switch on the main unit of the appliance is on the forced operation position, the error sound "beep-beep-beep-beep-beep-" is made 10 times to indicate that the remote control signal cannot be received.

# 2-way, 3-way Valve

| | | 2-way Valve (Liquid Side) | 3-way Valve (Gas Side) | |
|---|---|---|---|---|
| | |  |  | |
| Works | | Shaft position | Shaft position | Service port |
| Shipping | | Closed (with valve cap) | Closed (with valve cap) | Closed (with valve cap) |
| 1. | Pumping down (Transfering) | Closed (clockwise) | Open (counter-clockwise) | Open (connected manifold gauge) |
| 2. | Evacuation (Servicing) | Open | Open | Open (with charging cylinder) |
| 3. | Gas charging (Servicing) | Open | Open | Open (with charging cylinder) |
| 4. | Pressure check (Servicing) | Open | Open | Open (with charging cylinder) |
| 5. | Gas releasing (Servicing) | Open | Open | Open (with charging cylinder) |

## (1) Pumping down

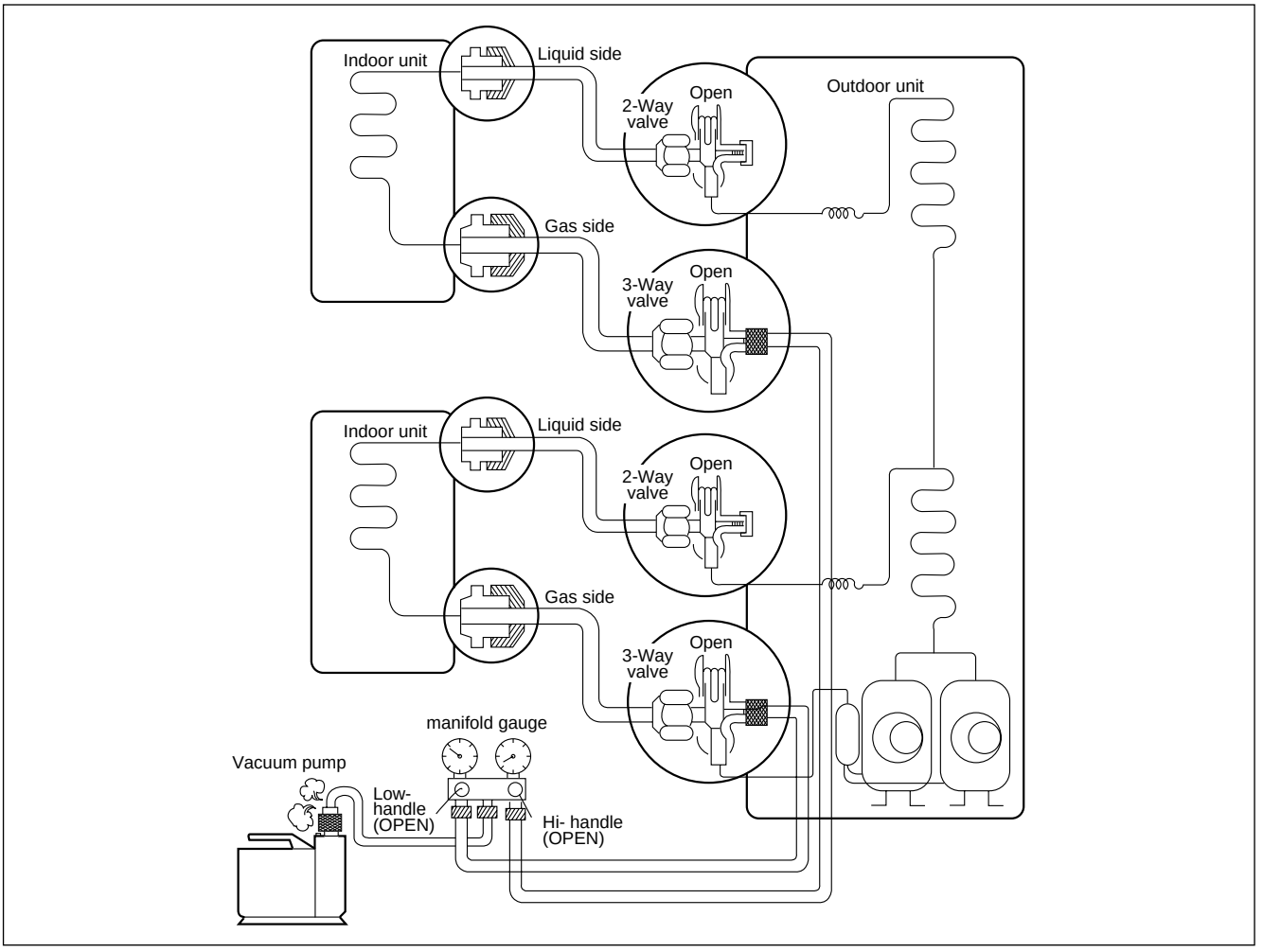



### • Procedure

1. **Confirm that both the gas side and liquid side valves are set to the open position.**
   - Remove the valve stem caps and confirm that the valve stems are in the raised position.
   - Be sure to use a hexagonal wrench to operate the valve stems.
2. **Operate the unit for 10 to 15 minutes.**
3. **Stop operation and wait for 3 minutes, then connect the manifold gauge to the service port of the gas side valve.**
   - Connect the hose of the gauge with the push pin to the service port.
4. **Air purging of the charge hose.**
   - Open the Low-handle valve on the gauge slightly to air purge from the hose.
5. **Set the liquid side valve to the closed position.**
6. **Operate the air conditioner at the cooling cycle and stop it when the gauge indicates 1kg/cm²g.**
7. **Immediately set the gas side valve to the closed position.**
   - Do this quickly so that the gauge ends up indicating 1kg/cm²g.
8. **Disconnect the charge set, and mount the liquid side and gas side valve caps and the service port nut.**
   - Use torque wrench to tighten the service port nut to a torque of 1.8kg.m.(4.2kg*m/5.5kg*m)
   - Be sure to check for gas leakage.

## (2) Evacuation

**(All amount of refrigerant leaked)**

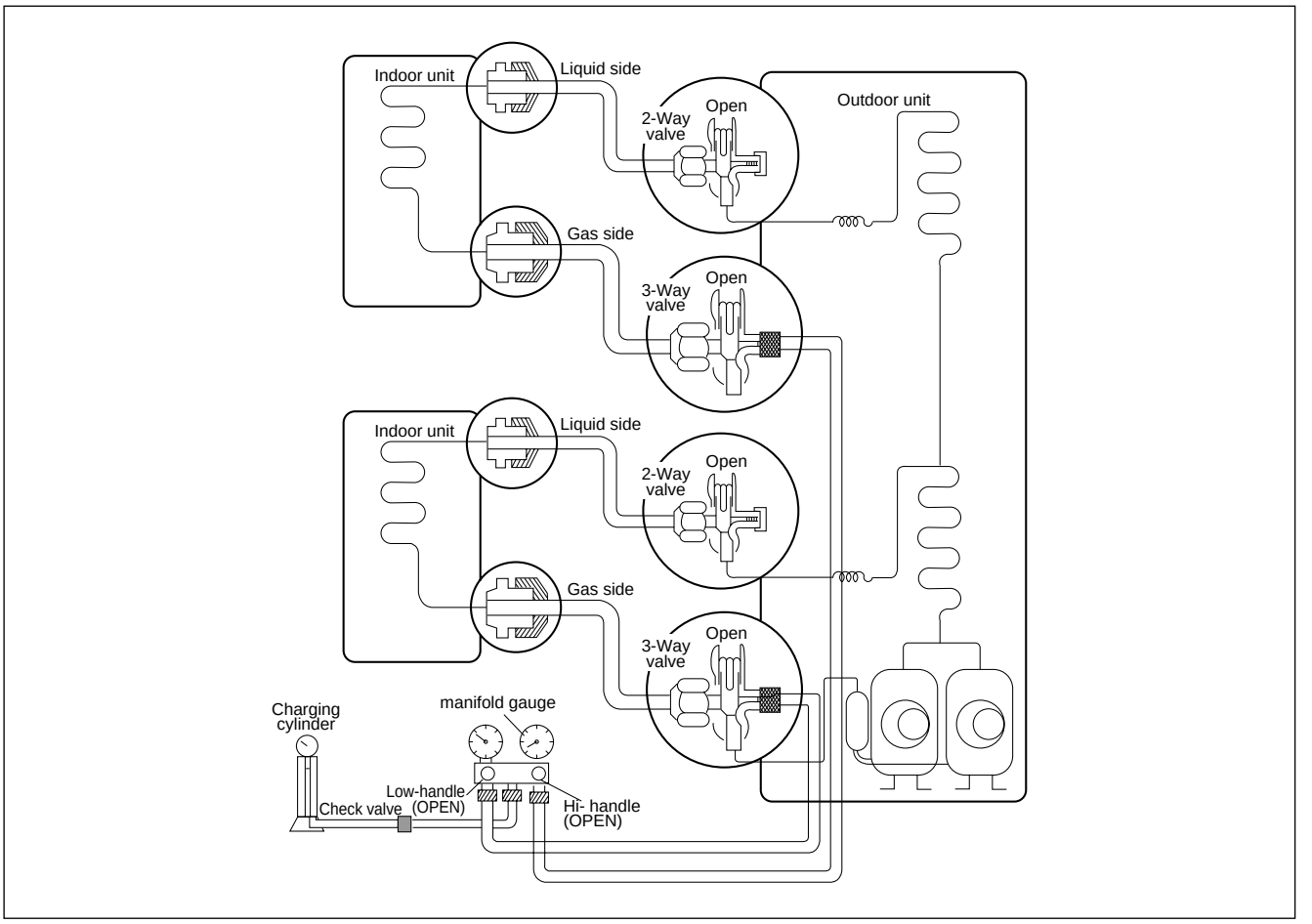



### • Procedure

1. **Confirm that both the liguid side valve and gas side valve are set to the opened position.**
2. **Connect the vaccum pump to the center hose of the manifold gauge.**
3. **Connect the service port of the gas side valve to the low side of the gauge.**
4. **Connect power supply to outdoor unit.**
5. **Evacuation for approximately one hour.**
   - Confirm that the gauge needle has moved toward-76 cmHg (vacuum of 4 mmHg or less).
6. **Close the Low handle of the gauge turn off the vacuum pump, and confirm that the gauge needle does not move(approximately 5 minutes after turning off the vacuum pump).**
7. **Disconnect the charge hose from the vacuum pump.**
   - Vacuum pump oil.
     If the vacuum pump oil becomes dirty or depleted,replenish as needed.
8. **Mount the valve caps and the service port caps.**

## (3) Gas Charging

**(After Evacuation)**




### • Procedure

**1. Connect the gauge to the charging cylinder.**
- Connect the charge hose which you disconnected from the vacuum pump to the valve at the bottom of the cylinder.
- If you are using a gas cylinder, also use a scale and reverse the cylinder so that the system can be charged with liquid.

**2. Purge the air from the charge hose.**
- Open the valve at the bottom of the cylinder and press the check valve on the charge set to purge the air. (Be careful of the liquid refrigerant). The procedure is the same if using a gas cylinder.

**3. Open the low handle on the gauge and charge the system with liquid refrigerant.**
- If the system can not be charged with the specified amount of refrigerant, it can be charged with a little at a time (approximately 150g each time) while operating the air conditioner in the cooling cycle; however, one time is not sufficient, wait approximately 1 minute and then repeat the procedure(pumping down-pin).

**4. Immediately disconnect the charge hose from the gas side valve's service port.**

This is different from previous procedures.
Because you are charging with liquid refrigerant from the gas side, absolutely do not attempt to charge with larger amounts of liquid refrigerant while operating the air conditioner.

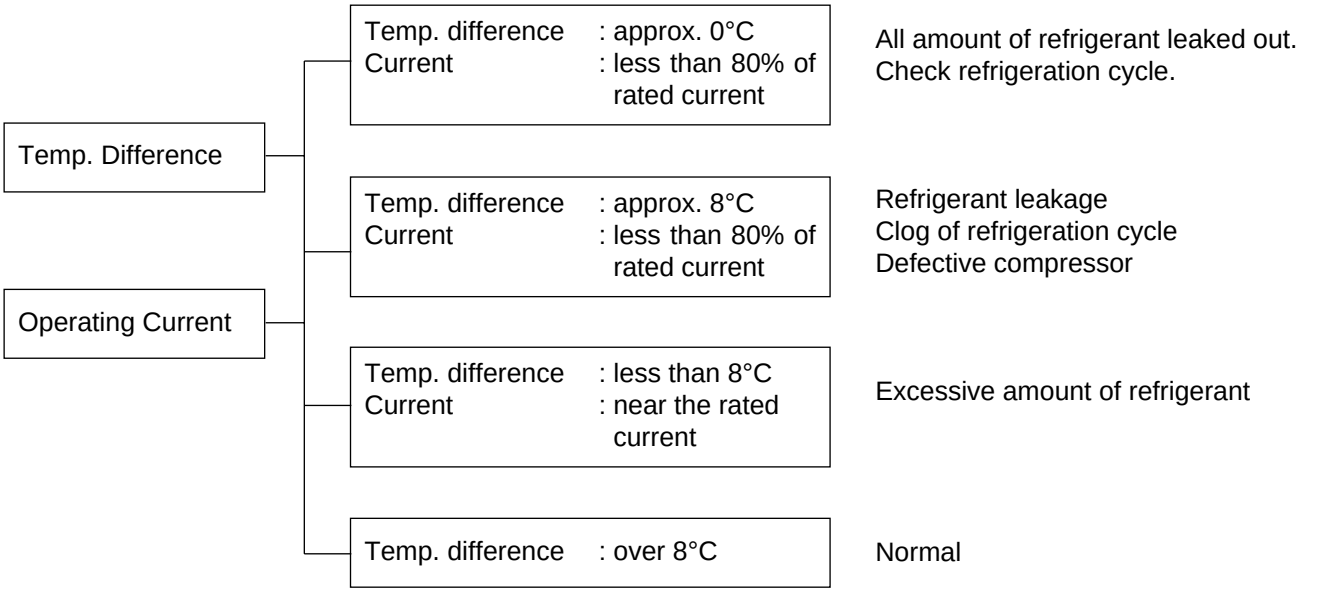
- Stopping partway will allow the gas to be discharged.
- If the system has been charged with liquid refrigerant while operating the air conditioner turn off the air conditioner before disconnecting the hose.

**5. Mount the valve stem nuts and the service port nut.**
- Use torque wrench to tighten the service port nut to a torque of 1.8 kg.m.(4.2kg.m/5.5kg.m.)
- Be sure to check for gas leakage.

# Cycle Troubleshooting Guide

## Trouble analysis

1. Check temperature difference between intake and discharge air, and operating current.


Temp. Difference
Operating Current
Temp. difference : approx. 0°C
Current : less than 80% of rated current
All amount of refrigerant leaked out.
Check refrigeration cycle.
Temp. difference : approx. 8°C
Current : less than 80% of rated current
Refrigerant leakage
Clog of refrigeration cycle
Defective compressor
Temp. difference : less than 8°C
Current : near the rated current
Excessive amount of refrigerant
Temp. difference : over 8°C
Normal

**Notice:**
Temperature difference between intake and discharge air depends on room air humidity. When the room air humidity is relatively higher, temperature difference is smaller. When the room air humidity is relatively lower temperature difference is larger.

2. Check temperature and pressure of refrigeration cycle.

| Suction pressure (Compared with the normal value) | Temperature (Compared with the normal value) | Cause of Trouble | Description |
|---|---|---|---|
| Higher | High | Defective compressor | Current is low. |
| | Normal | Excessive amount of refrigerant | High pressure does not quickly rise at the beginning of operation. |
| Lower | Higher | Insufficient amount of refrigerant(Leakage)<br>Clogging | Current is low. |

**Notice:**
1. The suction pressure is usually 8~12 kg/cm$^2$G at normal condition.
2. The temperature can be measured by attaching the thermometer to the low pressure tubing and wrap it with putty.

## Comp basic step.

Free joint outdoor unit has two compressor (TPS: Twin power system)

| Step | | Step 1 | Step 2 | Step 3 |
|---|---|---|---|---|
| Outdoor | Operation Mode | COMP 40%(1 comp) | COMP 60%(1 comp) | COMP 100%(2 comp) |
| 48K | Cooling | - | Qs ≤ 12k | 24k ≤ Qs |
| | Heating | - | Qs ≤ 12k | 24k ≤ Qs |
| 60K | Cooling | Qs ≤ 12k | Qs ≤ 24k | 24k < Qs |
| | Heating | Qs ≤ 12k | Qs ≤ 24k | 24k < Qs |

• If overload Max. capacity, display error code in indoor unit.

• Qs: Summation of indoor unit capacity, 'S' is summation.

## Max. capacity

| Outdoor | Max capacity |
|---|---|
| 48k | 48k combination |
| 60k | 60k combination |

# Electronic Parts Troubleshooting Guide

## 1. The Outdoor Unit does not operate at all

Does the Operating LED of indoor unit blink when Operation's ON?

NO → Refer to the self-diagnosis function.

NO

Is the Connection between CN-Power of indoor unit and terminal block?

NO → Check the connecting state of connector

YES

Is the connection of cable between indoor and outdoor unit ringht?

NO →

| Indoor | Outdoor |
|---|---|
| 1(L)(Brown) | 1(L)(Brown) |
| 2(N)(Blue) | 2(N)(Blue) |
| ⏚ (Green/YL) | ⏚ (Green/YL) |
| 3(Red) | 3(Red) |

YES

Is the voltage of CN-POWER ①, ③ in outdoor PCB Ass'y about AC220V / 240V?

NO → Check the main power

YES

Check the Fuse of outdoor PCB Ass'y.
Chek the connecting state of wires

NO

Replace the PCB Ass'y.

* TPS units start at three minutes after main power turning on.

## 2. The product is not operate with the remote controller.

Turn on Main Power

While the compressor has been stopped, the compressor does not operate owing to the delaying function for 3 minutes after stopped.

When the compressor stopped Indoor Fan is driven by a low speed. At this point the wind speed is not controlled by the remote controller. (When operated in the Sleeping Mode, the wind speed is set to the low speed by force.)

Caused by the remote controller

When the mark( ) is displayed in LCD screen, replace battery.

When the detect switch(double key) inside the remote controller door is fault, it is impossible to operate temperature regulating(▲/▼) and wind speed selecting.

Replace remote controller

Caused by other parts except the remote controller

Check the contact of CN-DISP1 connector.

Check DISP PWB Ass'y
- Voltage between CN DISP1 ① - ⑦ : DC +5V

Check point

- Check the connecting circuit between PIN ② - R01L(1K) - C01L(680PF) - MICOM PIN
- Check Receiver Ass'y

## 3. When cooling does not operate

Turn on Main Power

↓

Operate "Cooling Mode( ❋ )" by setting the desired temperature of the remote controller is less than one of the indoor temperature by 1°C at least.

↓

When in Air Circulation Mode, Compressor/Outdoor Fan is stopped.

↓

Check the sensor for indoor temperature is attached as close as to be effected by the temperature of Heat Exchanger(EVA).

↓

When the sensor circuit for indoor temperature and connector are in bad connection or are not engaged, Compressor/Outdoor Fan is stopped.

• Check the indoor temperature sensor is disconnected or not(About 10kΩ / at 25°C).

↓

Check Relay(RY - COMP) for driving compressor.

• When the power(About AC220V/240V) is applied to the connecting wire terminal support transferred to compressor, PWB Ass'y is normal.
• Check the circuit related to the relay.

| Check point | COMP ON | COMP OFF |
|---|---|---|
| Between two pin of DC part in relay for COMP | Below DC 1V (app) | About DC12V |

## 4. When Heating does not operate

Turn ON Main Power

Operate “Heating Mode(☼ )” by setting the desired temperature of the remote control is higher than one of the indoor temperature by 2°C at least.

In heating Mode, the indoor fan operates in case the pipe temperature is higher than 28°C.

Check the connector of intake and pipe sensor(thermistors)

- Check the indoor room temperature is disconnected or not (about 10KΩ/at 25°C).
- Check the indoor pipe temperature is disconnected or not (about 5KΩ/at 25°C).

Check the DC voltage on the PWB ASS’Y

- The details of check are as followings

- Comp Relay.

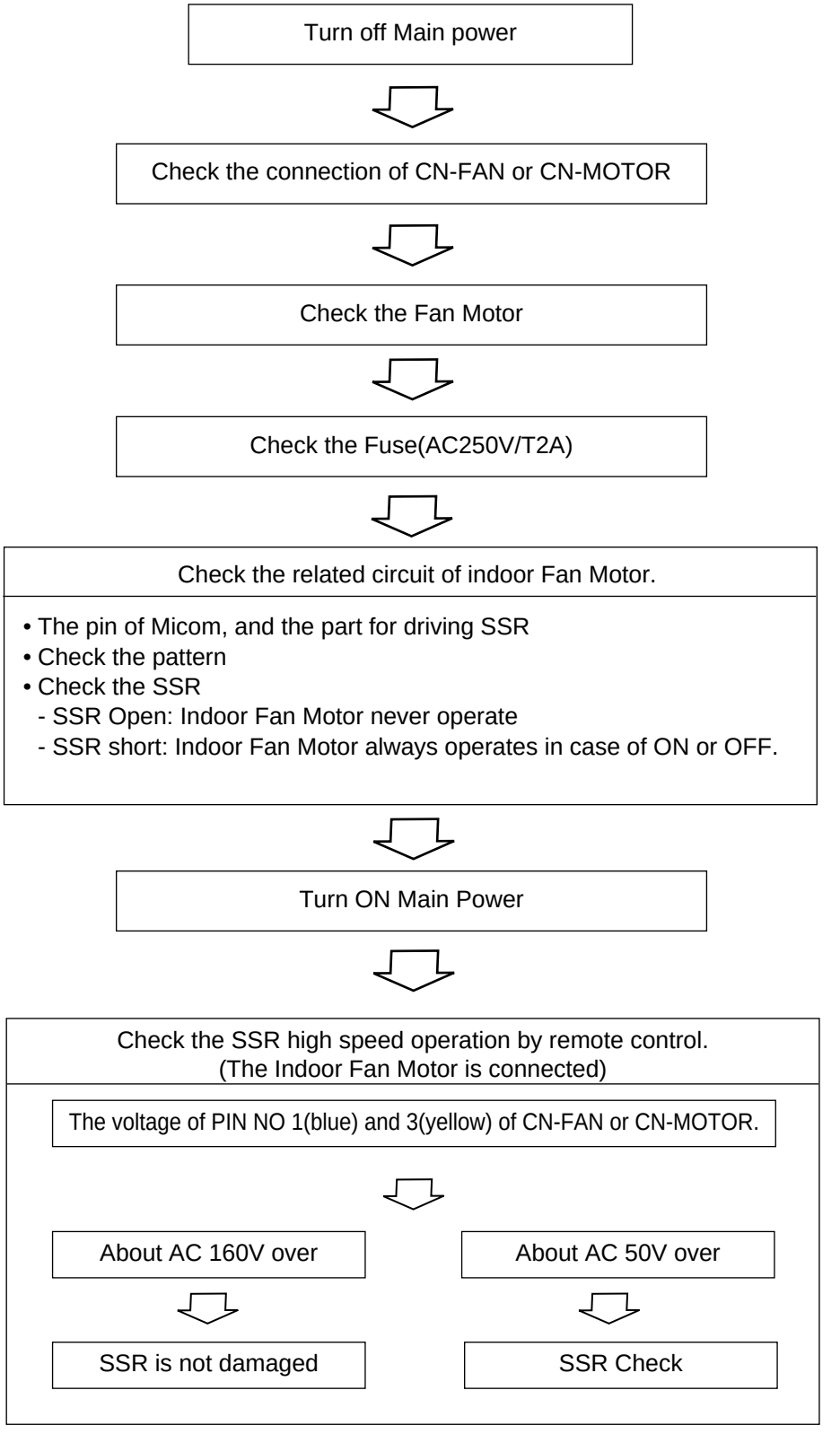
| Check point | Comp ON | Comp OFF |
|---|---|---|
| Between two pin of DC part in relay for COMP. | Below DC 1V | About DC 12V |

- 4-Way Relay

| Check point | 4-Way ON | 4-Way OFF |
|---|---|---|
| Between two pin of DC part in relay for 4-way. | Below DC 1V | About DC 12V |

Check Outdoor Unit

## 5. When indoor Fan does not operate


Turn off Main power
Check the connection of CN-FAN or CN-MOTOR
Check the Fan Motor
Check the Fuse(AC250V/T2A)
Check the related circuit of indoor Fan Motor.
• The pin of Micom, and the part for driving SSR
• Check the pattern
• Check the SSR
- SSR Open: Indoor Fan Motor never operate
- SSR short: Indoor Fan Motor always operates in case of ON or OFF.
Turn ON Main Power
Check the SSR high speed operation by remote control.
(The Indoor Fan Motor is connected)
The voltage of PIN NO 1(blue) and 3(yellow) of CN-FAN or CN-MOTOR.
About AC 160V over
About AC 50V over
SSR is not damaged
SSR Check

## 6. When Vertical Louver does not operate

- Confirm that the Vertical Louver is normally geared with the shaft of Stepping Motor.
- If the regular torque is detected when rotating the Vertical Louver with hands ⇒ Normal

⇩

- Check the connecting condition of CN-U/D Connector
- Check the soldering condition(on PWB) of CN-U/D Connector

⇩

Check the operating circuit of the Vertical Louver

- Confirm that there is DC +12V between pin ①(RED) of CN-U/D and GND.

⇩

If there are no problems after above checks

- Confirm the assembly conditions that are catching and interfering parts in the rotation radial of the Vertical Louver

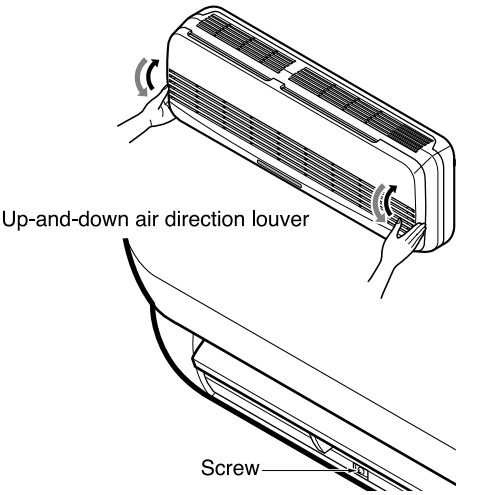
# Disassembly of the parts (Indoor unit)

## 1. SR/ST Chassis

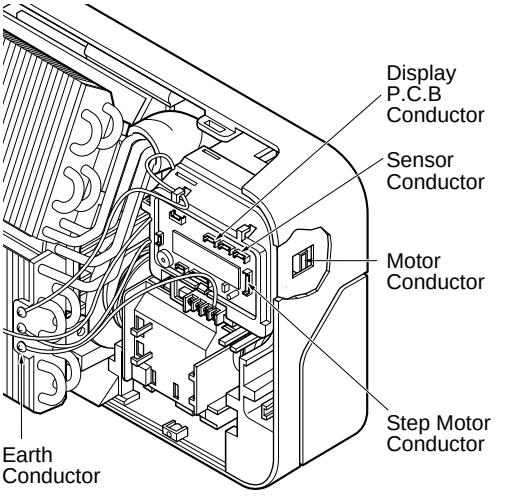
**Warning :**
Disconnect the unit from power supply before making any checks.
Be sure the power switch is set to “OFF”.

**To remove the Grille from the Chassis.**

- Set the up-and-down air discharge louver to open position (horizontally) by finger pressure.
- Remove the securing screws.
- To remove the Grille, pull the lower left and right side of the grille toward you (slightly tilted) and lift it straight upward.

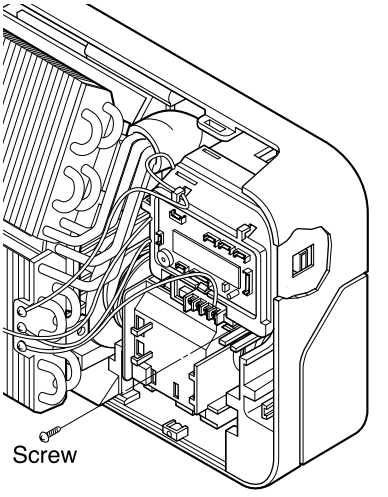



**1. Before removing the control box, be sure to take out the wire screwed at the other end.**



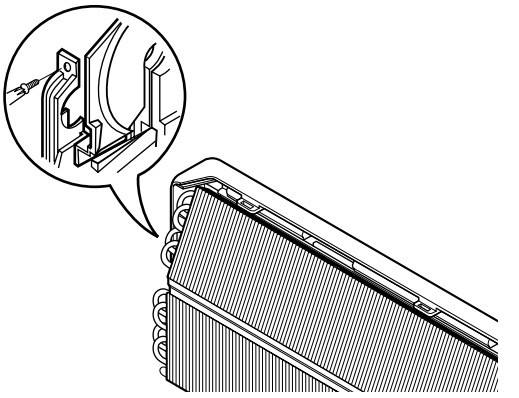

**2. To remove the Control Box.**

- Remove securing screws.
- Pull the control box out from the chassis carefully.



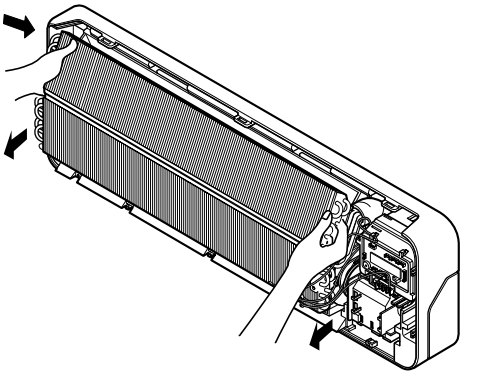
**3. To remove the Discharge Grille.**

- Unhook the discharge grille and pull the discharge grille out from the chassis carefully.

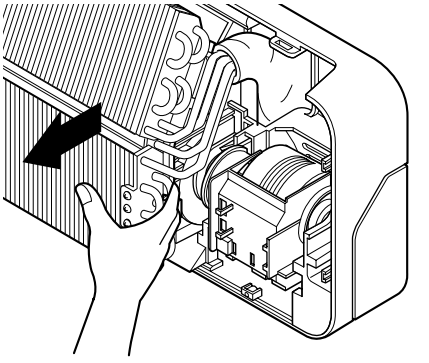


**4. To remove the Evaporator.**

- Remove 3 screws securing the evaporator(at the left 2EA in the Eva Holder, at the right 1EA).

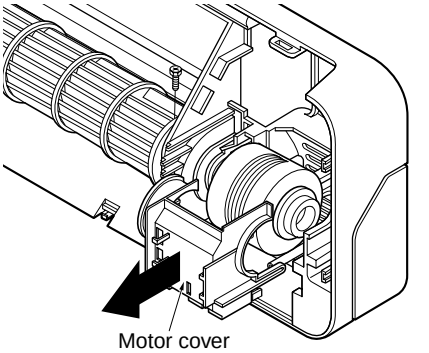


- Unhook the tab on the right inside of the chassis at the same time, slightly pull the evaporator toward you until the tab is clear of the slot.



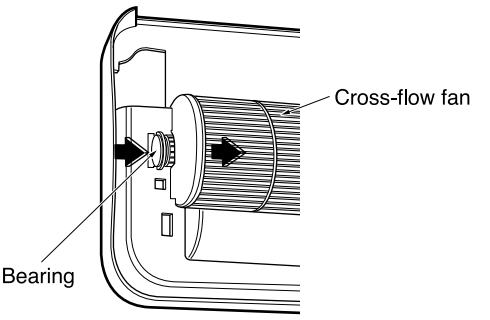
**5. To remove the Motor Cover**

- Remove 2 securing screw.
- Pull the motor cover out from the chassis carefully.



**6. To remove the Cross-Flow Fan**

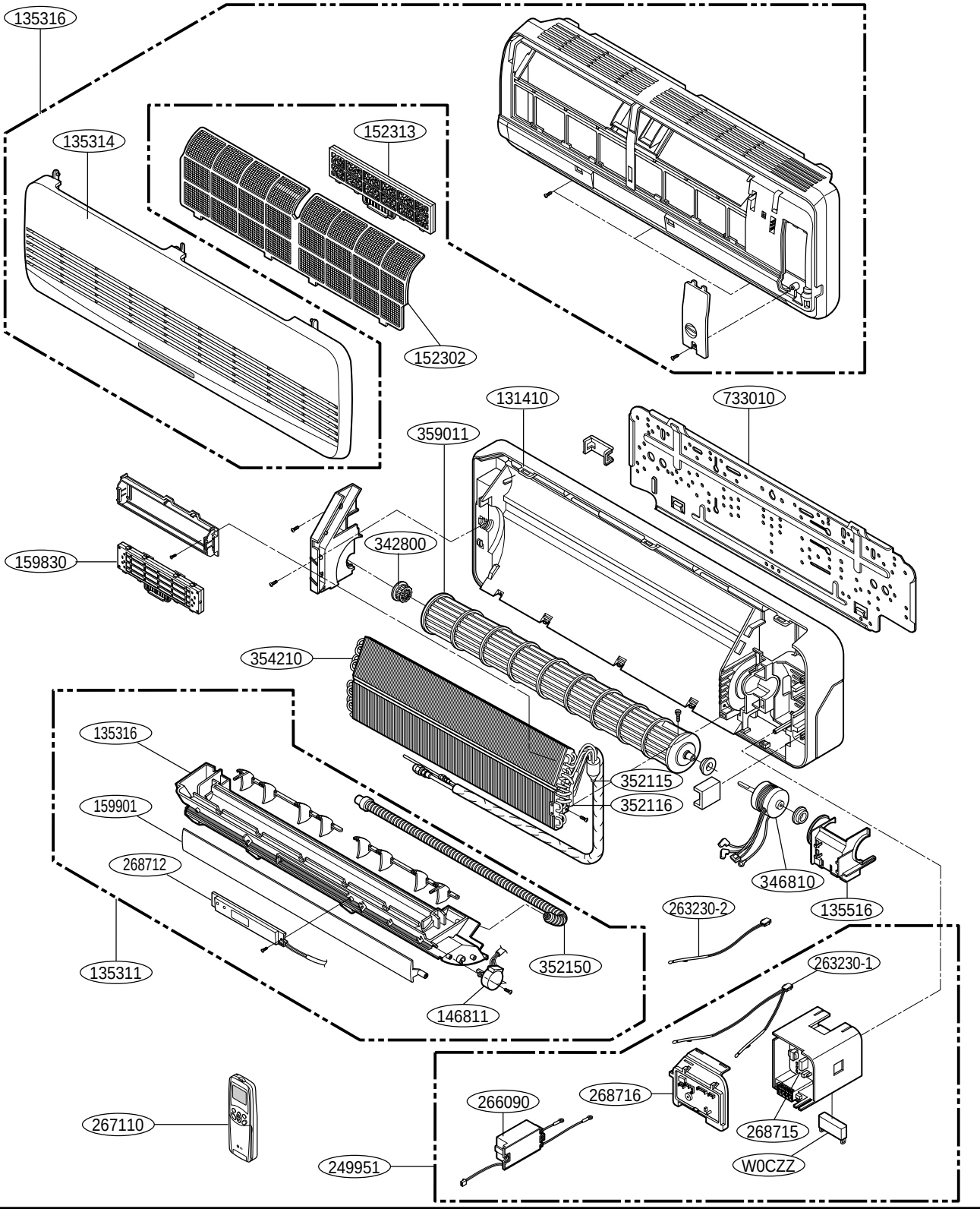
- Loosen the screw securing the cross-flow fan to the fan motor (do not remove).
- Lift up the right side of the cross-flow fan and the fan motor, separate the fan motor from the cross-flow fan.
- Remove the left end of the cross-flow fan from the self-aligning bearing.



# Exploded View & Replacement Parts List

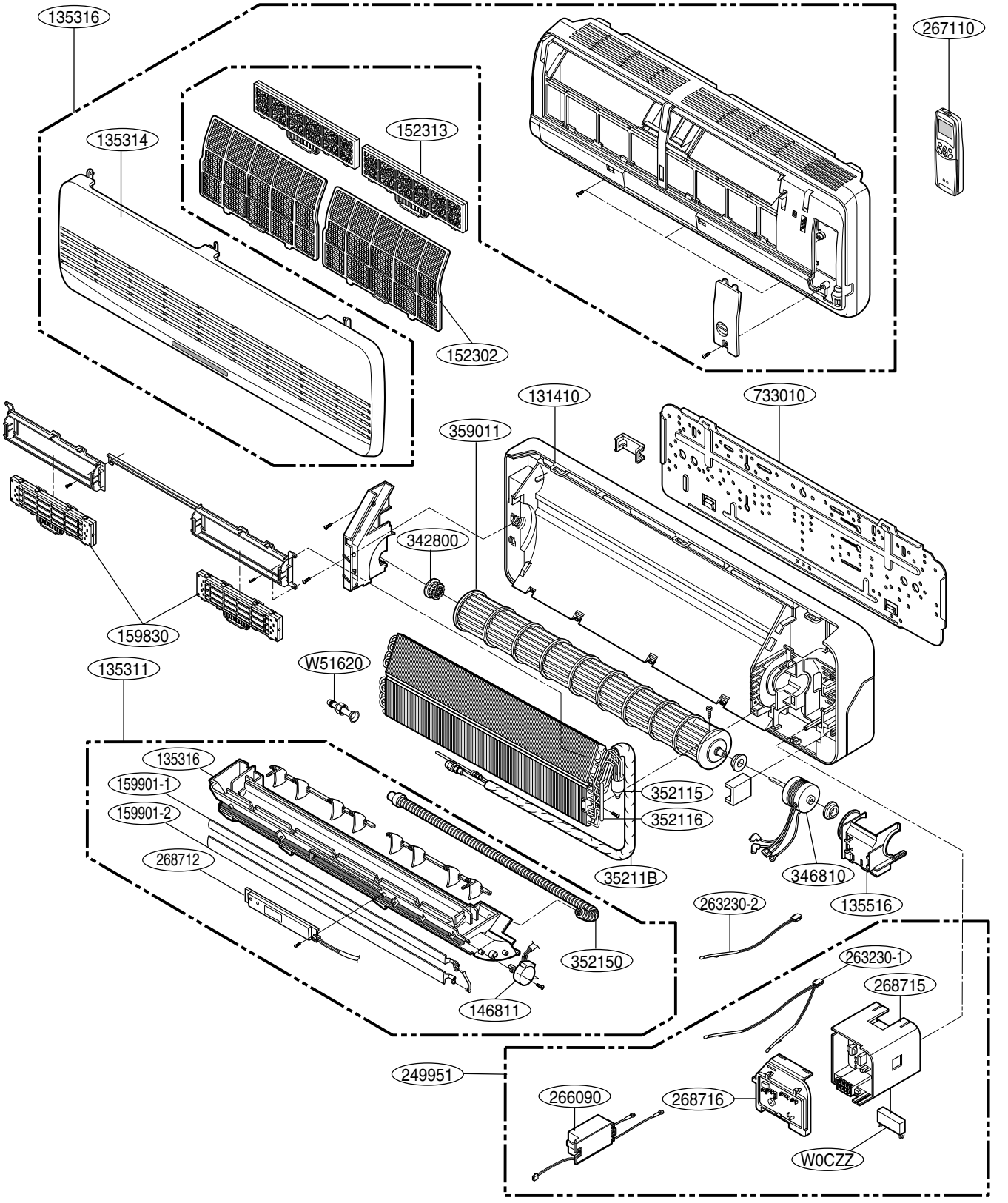
## 1. Indoor Unit

### SR Chassis



| LOCATION No. | DESCRIPTION | PART No. | | | | | SVC CODE |
|---|---|---|---|---|---|---|---|
| | | LMNC122LRL0 | LMNH122LRA0 | LMNC122LRL0 | LMNC122LRA0 | L3NC122NRA1 | |
| 131410 | CHASSIS ASSEMBLY | 3141A20005B | 3141A20005B | 3141A20005B | 3141A20005B | 3141A20005G | R |
| 135311 | GRILLE ASSEMBLY,DISCHARGE(INDOOR) | 5231A10230A | 5231A10230A | 5231A10230A | 5231A10230A | 5231A10230W | R |
| 152313 | FILTER ASSEMBLY, DEODORIZER | 5231A20032C | 5231A20032E | 5231A20032C | 5231A20032E | - | R |
| 135314 | GRILLE ASSEMBLY,INLET SUB | 3531A10117B | 3531A10117B | 3531A10283D | 3531A10283D | - | R |
| 135316 | GRILLE ASSEMBLY,FRONT(INDOOR) | 3531A20107F | 3531A10208X | 3531A10208W | 3531A21017G | 3531A21016F | R |
| 135516 | COVER ASSEMBLY,MOTOR | 3551A20099A | 3551A20099A | 3551A20099A | 3551A20099A | 3551A20099A | R |
| 146811 | MOTOR ASSEMBLY,STEP | 4681A20055A | 4681A20055A | 4681A20055A | 4681A20055A | 4681A20055A | R |
| 152302 | FILTER(MECH),A/C | 5230A20014C | 5230A20014C | 5230A20014C | 5230A20014C | 5230A20014C | R |
| 159830 | AIR CLEANER ASSEMBLY | 5983A10006U | 5983A10006U | 5983A10006U | 5983A10006U | - | R |
| 159901 | VANE,HORIZONTAL | 5990A20007A | 5990A20007A | 5990A20007A | 5990A20007A | 5990A20007B | R |
| 249951 | CONTROL BOX ASSEMBLY,INDOOR | 4995A10072G | 4995A20361Y | 4995A20361V | 4995A10072E | 4995A10072E | R |
| 263230-1 | THERMISTOR ASSEMBLY | 6323AQ3226T | 6323AQ3226T | 6323AQ3226T | 6323AQ3226T | 6323AQ3123A | R |
| 263230-2 | THERMISTOR ASSEMBLY | 6323A20004A | 6323A20004A | 6323A20004A | 6323A20004A | 6323A20004A | R |
| 266090 | H.V ASSEMBLY | 6609A10003H | 6609A10003H | 6609A10003H | 6609A10003H | - | R |
| 267110 | REMOTE CONTROLLER ASSEMBLY | 6711A20073F | 6711A20073N | 6711A20073M | 6711A20073L | 6711A20025U | R |
| 268712 | PWB(PCB) ASSEMBLY,DISPLAY | 6871A20390A | 6871A20390A | 6871A20390A | 6871A20390A | 6871A20390A | R |
| 268715 | PWB(PCB) ASSEMBLY,MAIN(AC) | 6871A20267B | 6871A20267B | 6871A20267B | 6871A20267B | 6871A20267B | R |
| 268716 | PWB(PCB) ASSEMBLY,MAIN(DC) | 6871A20440N | 6871A20440N | 6871A20440P | 6871A20440P | 6871A20440P | R |
| 342800 | BEARING | 4280A20004A | 4280A20004A | 4280A20004A | 4280A20004A | 4280A20004A | R |
| 346810 | MOTOR ASSEMBLY,INDOOR | 4681A20048D | 4681A20048D | 4681A20048D | 4681A20048D | 4681A20048D | R |
| 352115 | TUBE ASSEMBLY,EVAPORATOR IN | 5211A20038H | 5211A20038H | 5211A20038H | 5211A20038H | 5211A20388H | R |
| 352116 | TUBE ASSEMBLY,EVAPORATOR OUT | 5211A20389F | 5211A20389F | 5211A20389F | 5211A20389F | 5211A20389F | R |
| 352150 | HOSE ASSEMBLY,DRAIN | 5251AR2575F | 5251AR2575F | 5251AR2575F | 5251AR2575F | 5251AR2575F | R |
| 354210 | EVAPORATOR ASSEMBLY, FIRST | 5421A20086A | 5421A20086A | 5421A20086A | 5421A20086A | 5421A20086A | R |
| 359011 | FAN ASSEMBLY,CROSS FLOW | 5901A20007A | 5901A20007A | 5901A20007A | 5901A20007A | 5901A20007A | R |
| 733010 | PLATE ASSEMBLY,INSTALL | 1H00843A | 1H00843A | 1H00843A | 1H00843A | 1H00843A | R |
| W0CZZ | CAPACITOR,DRAWING | 3H01487A | 3H01487A | 3H01487A | 3H01487A | 3H01487A | R |

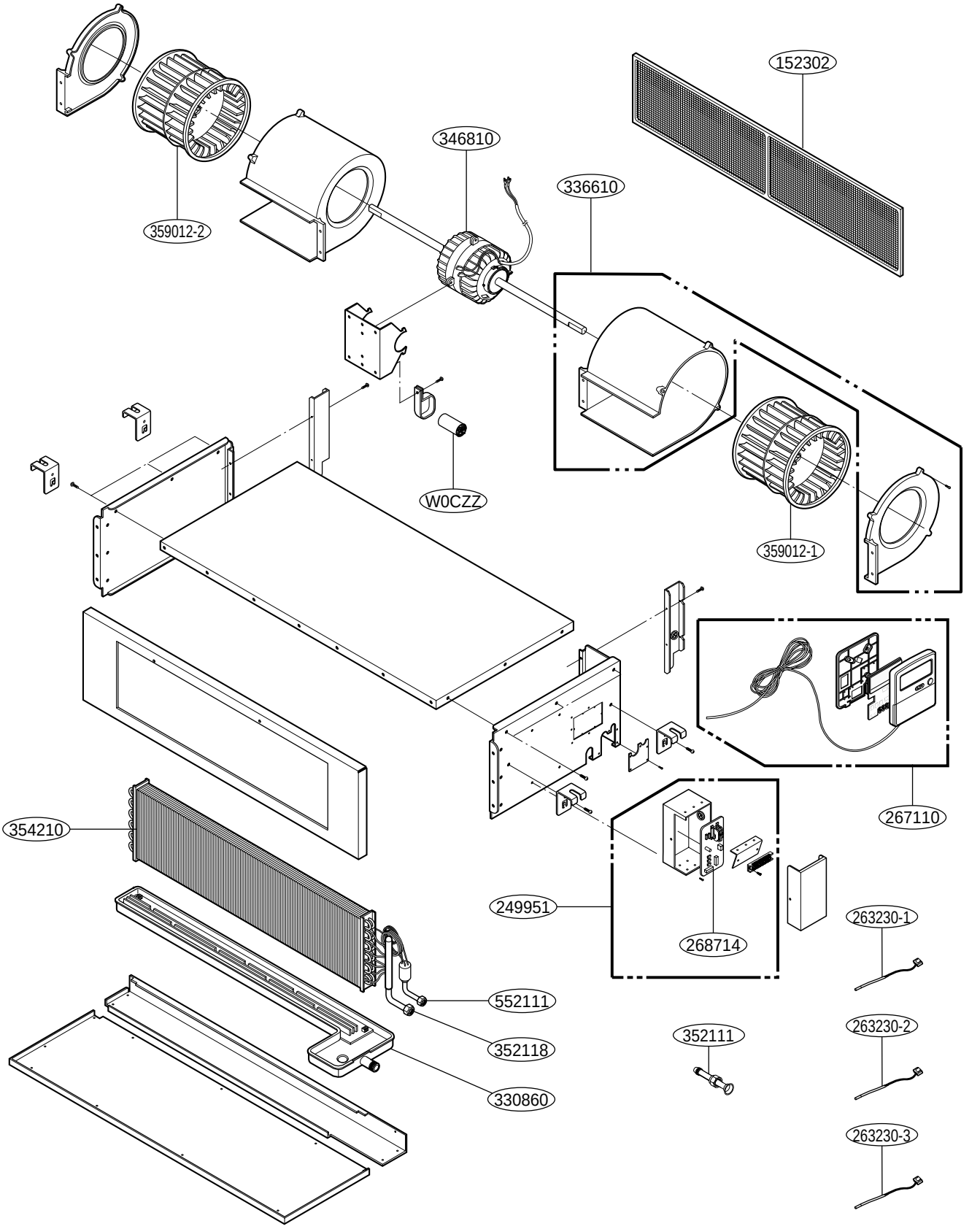
## ST Chassis


135316
267110
135314
152313
152302
131410
733010
359011
342800
159830
W51620
135311
135316
159901-1
159901-2
268712
352115
352116
35211B
346810
135516
263230-2
352150
263230-1
268715
146811
249951
266090
268716
W0CZZ

| LOCATION No. | DESCRIPTION | PART No. | | | | SVC CODE |
|---|---|---|---|---|---|---|
| | | LMNH182LTL0 | LMNH182LTA0 | LMNH242LTL0 | LMNC182LTA0 | |
| 131410 | CHASSIS ASSEMBLY | 3141A10002A | 3141A10002A | 3141A10002A | 3141A10002A | R |
| 135311 | GRILLE ASSEMBLY,DISCHARGE(INDOOR) | 3531A10116A | 3531A10116A | 3531A10116A | 3531A10116A | R |
| 135314 | GRILLE ASSEMBLY,INLET SUB | 3531A20107W | 3531A20107V | 3531A20107W | 3531A20107V | R |
| 135316 | GRILLE ASSEMBLY,FRONT(INDOOR) | 3531A20207E | 3531A24010F | 3531A20207E | 3531A20207F | R |
| 135516 | COVER ASSEMBLY,MOTOR | 3551A20099C | 3551A20099C | 3551A20099C | 3551A20099C | R |
| 146811 | MOTOR ASSEMBLY,STEP | 4681A20055A | 4681A20055A | 4681A20055A | 4681A20055A | R |
| 152302 | FILTER(MECH),A/C | 5230A20001A | 5230A20001A | 5230A20001A | 5230A20001A | R |
| 159830 | AIR CLEANER ASSEMBLY | 5983A10006T | - | 5983A10006T | - | R |
| 159901-1 | VANE,HORIZONTAL | 5990A20008A | 5990A20008A | 5990A20008A | 5990A20008A | R |
| 159901-2 | VANE,HORIZONTAL | 5990A20009A | 5990A20009A | 5990A20009A | 5990A20009A | R |
| 249951 | CONTROL BOX ASSEMBLY,INDOOR | 4995A20361E | 4995A20361K | 4995A20361F | 4995A20361L | R |
| 263230-1 | THERMISTOR ASSEMBLY | 6323AQ3226T | 6323AQ3226T | 6323AQ3226T | 6323AQ3226T | R |
| 263230-2 | THERMISTOR ASSEMBLY | 6323A20004A | 6323A20004A | 6323A20004A | 6323A20004A | R |
| 266090 | H.V ASSEMBLY | 6609A10003L | - | 6609A10003L | - | R |
| 267110 | REMOTE CONTROLLER ASSEMBLY | 6711A20067J | 6711A20067G | 6711A20067J | 6711A20067G | R |
| 268712 | PWB(PCB) ASSEMBLY,DISPLAY | 6871A20194B | 6871A20194B | 6871A20194B | 6871A20194B | R |
| 268715 | PWB(PCB) ASSEMBLY,MAIN(AC) | 6871A20267B | 6871A20267B | 6871A20267B | 6871A20267B | R |
| 268716 | PWB(PCB) ASSEMBLY,MAIN(DC) | 6871A20440E | 6871A20440L | 6871A20440F | 6871A20440M | R |
| 342800 | BEARING | 4280A20004A | 4280A20004A | 4280A20004A | 4280A20004A | R |
| 346810 | MOTOR ASSEMBLY,INDOOR | 4681A20003D | 4681A20003D | 4681A20067A | 4681A20067A | R |
| 352111 | TUBE ASSEMBLY,CONNECTOR | 5211A20514B | 5211A20514B | 5211A20514B | 5211A20514B | R |
| 352115 | TUBE ASSEMBLY,EVAPORATOR IN | 5211A30058H | 5211A30058H | 5211A30097J | 5211A30097J | R |
| 352116 | TUBE ASSEMBLY,EVAPORATOR OUT | 5211A30057D | 5211A30057D | 5211A30098G | 5211A30098G | R |
| 352150 | HOSE ASSEMBLY,DRAIN | 5251AR2575F | 5251AR2575F | 5251AR2575F | 5251AR2575F | R |
| 359011 | FAN ASSEMBLY,CROSS FLOW | 5901A20008A | 5901A20008B | 5901A20008A | 5901A20008B | R |
| 733010 | PLATE ASSEMBLY,INSTALL | 3301A10002A | 3301A10002A | 3301A10002A | 3301A10002A | R |
| 35211B | TUBE ASSEMBLY,TUBING | 5211A30439E | 5211A30439E | 5211A30439J | 5211A30439J | R |
| W0CZZ | CAPACITOR,DRAWING | 3H01487G | 3H01487G | 3H01487G | 3H01487G | R |

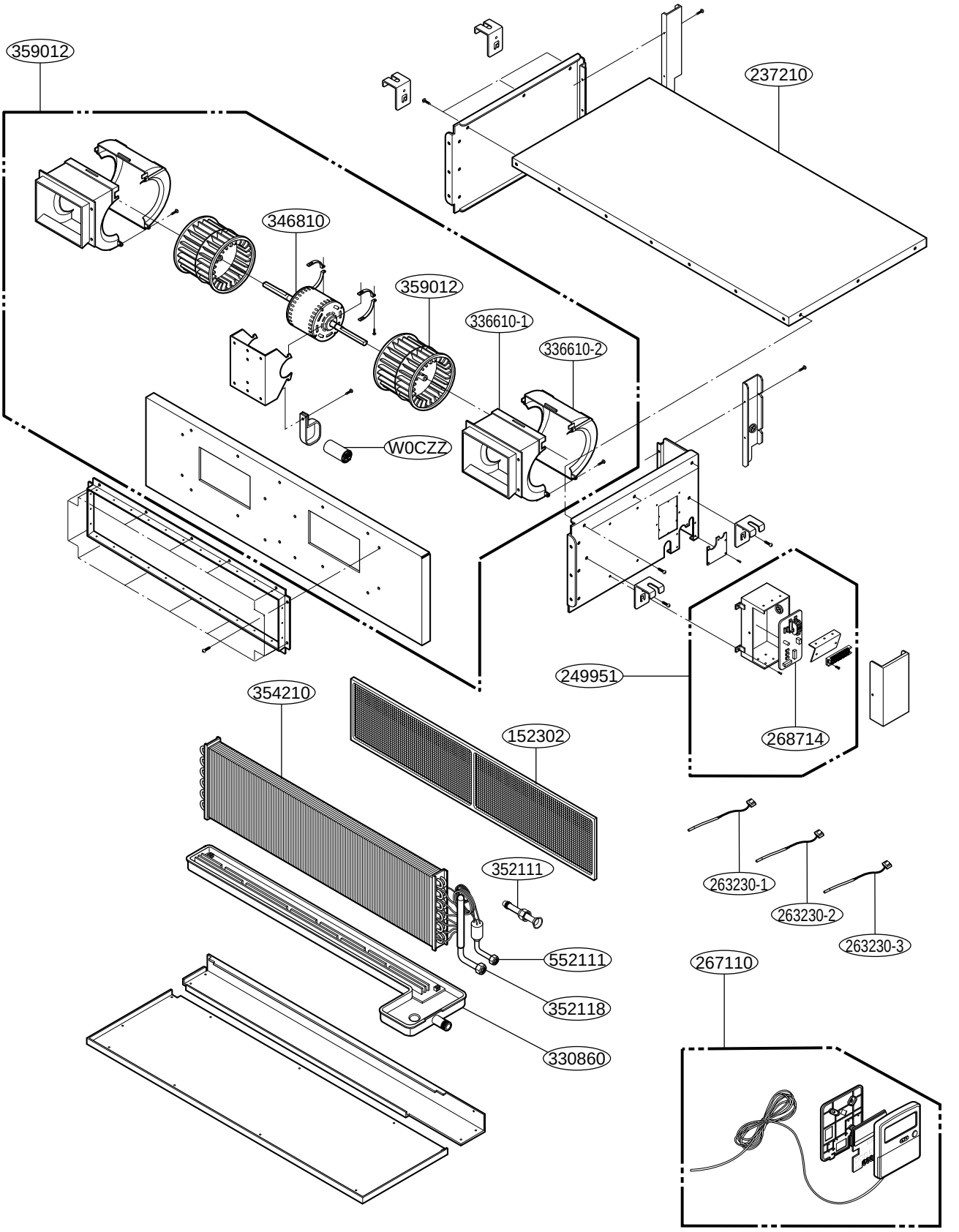
| LOCATION No. | DESCRIPTION | PART No. | | | | | SVC CODE |
|---|---|---|---|---|---|---|---|
| | | LMNH242TL0 | LMNH242LTA0 | LMNC242LTL0 | LMNC242LTA0 | L3NC242NRA1 | |
| 131410 | CHASSIS ASSEMBLY | 3141A10002B | 3141A10002B | 3141A10002B | 3141A10002B | 3141A10002H | R |
| 135311 | GRILLE ASSEMBLY,DISCHARGE(INDOOR) | 3531A10116A | 3531A10116A | 3531A10116A | 3531A10116A | 3531A10224A | R |
| 135316 | GRILLE ASSEMBLY,FRONT(INDOOR) | 3531A24010D | 3531A20207L | 3531A20207K | 3531A24010E | 3531A21020G | R |
| 135516 | COVER ASSEMBLY,MOTOR | 3551A20099C | 3551A20099C | 3551A20099C | 3551A20099C | 3551A20099C | R |
| 146811 | MOTOR ASSEMBLY,STEP | 4681A20055A | 4681A20055A | 4681A20055A | 4681A20055A | 4681A20055A | R |
| 152302 | FILTER(MECH),A/C | 5230A20001A | 5230A20001A | 5230A20001A | 5230A20001A | 5230A20001A | R |
| 152131 | FILTER ASSEMBLY, DEODORIEER | - | 5231A20032F | - | 5231A20032F | - | R |
| 159830 | AIR CLEANER ASSEMBLY | 5983A10006U | - | 5983A10006T | - | - | R |
| 159901-1 | VANE,HORIZONTAL | 5990A20008A | 5990A20008A | 5990A20008A | 5990A20008A | 5990A20008B | R |
| 159901-2 | VANE,HORIZONTAL | 5990A20009A | 5990A20009A | 5990A20009A | 5990A20009A | 5990A20009B | R |
| 249951 | CONTROL BOX ASSEMBLY,INDOOR | 4995A10072H | 4995A20361X | 4995A20361W | 4995A10072F | 4995A10072F | R |
| 263230-1 | THERMISTOR ASSEMBLY | 6323AQ3226T | 6323AQ3226T | 6323AQ3226T | 6323AQ3226T | 6323AQ3226T | R |
| 263230-2 | THERMISTOR ASSEMBLY | 6323A20004A | 6323A20004A | 6323A20004A | 6323A20004A | 6323A20004A | R |
| 266090 | H.V ASSEMBLY | 6609A10003L | - | 6609A10003L | - | - | R |
| 267110 | REMOTE CONTROLLER ASSEMBLY | 6711A20073F | 6711A20073N | 6711A20073M | 6711A20073L | 6711A20025U | R |
| 268712 | PWB(PCB) ASSEMBLY,DISPLAY | 6871A20194B | 6871A20194B | 6871A20194B | 6871A20194B | 6871A20194B | R |
| 268715 | PWB(PCB) ASSEMBLY,MAIN(AC) | 6871A20267B | 6871A20267B | 6871A20267B | 6871A20267B | 6871A20267B | R |
| 268716 | PWB(PCB) ASSEMBLY,MAIN(DC) | 6871A20440Q | 6871A20440Q | 6871A20440R | 6871A20440R | 6871A20440R | R |
| 342800 | BEARING | 4280A20004A | 4280A20004A | 4280A20004A | 4280A20004A | 4280A20004A | R |
| 346810 | MOTOR ASSEMBLY,INDOOR | 4681A20003F | 4681A20003F | 4681A20003F | 4681A20003F | 4681A20003F | R |
| 35211B | TUBE ASSEMBLY,TUBING | 5211AR7066U | 5211AR7066U | 5211AR7066U | 5211AR7066U | 5211AR7066U | R |
| 352115 | TUBE ASSEMBLY,EVAPORATOR IN | 5211A30058H | 5211A30058H | 5211A30097J | 5211A30097J | 5211A30058H | R |
| 352116 | TUBE ASSEMBLY,EVAPORATOR OUT | 5211A30057D | 5211A30057D | 5211A30098G | 5211A30098G | 5211A30057D | R |
| 352150 | HOSE ASSEMBLY,DRAIN | 5251AR2575F | 5251AR2575F | 5251AR2575F | 5251AR2575F | 5251AR2575F | R |
| 359011 | FAN ASSEMBLY,CROSS FLOW | 5901A20008A | 5901A20008B | 5901A20008A | 5901A20008A | 5901A20008A | R |
| 733010 | PLATE ASSEMBLY,INSTALL | 3301A10002A | 3301A10002A | 3301A10002A | 3301A10002A | 3301A10002A | R |
| W0CZZ | CAPACITOR,DRAWING | 3H01487G | 3H01487G | 3H01487G | 3H01487G | 3H01487G | R |
| W51620 | SOCKET(MECH), FLARE | 5162A20011A | 5162A20011A | 5162A20011A | 5162A20011A | 5162A20011A | R |

## Duct Type - Low Static (BT, BT1 chassis)



| LOCATION No. | DESCRIPTION | PART No. | | SVC CODE |
|---|---|---|---|---|
| | | LMNH126BTG0 | LMNH186BTG0 | |
| 152302 | FILTER(MECH), A/C | 5230A30001Q | 5230A30001P | R |
| 237203 | PANEL ASSEMBLY, UPPER | 3721A20150B | 3721A20150A | R |
| 249951 | CONTROL BOX ASSEMBLY(INDOOR) | 4995A20338E | 4995A20338J | R |
| 263230-1 | THERMISTOR ASSEMBLY (IN) | 6323AQ3226G | 6323AQ3226G | R |
| 263230-2 | THERMISTOR ASSEMBLY (ROOM) | 6323AQ3214E | 6323AQ3214E | R |
| 263230-3 | THERMISTOR ASSEMBLY (OUT) | 6323A20025D | 6323A20025D | R |
| 267110 | REMOTE CONTROLLER ASSEMBLY | 6711A10008U | 6711A10008U | R |
| 268714 | PWB(PCB) ASSEMBLY, MAIN | 6871A10131B | 6871A10131G | R |
| 330860 | DRAIN PAN ASSEMBLY | 3087A10015C | 3087A10015B | R |
| 336610 | HOUSING(MECH), WRAPPER | 3660A20033A | 3660A20033A | R |
| 346810 | MOTOR ASSEMBLY, INDOOR | 4681A10022B | 4681A10022A | R |
| 352118 | TUBE ASSEMBLY, MENIFOLD(INDOOR) | 5211A25011B | 5211A10418C | R |
| 354210 | EVAPORATOR ASSEMBLY, FIRST | 5421A21002A | 5421A20153A | R |
| 359012-1 | FAN ASSEMBLY, BLOWER(Single) | 5901A20030A | 5901A20030A | R |
| 359012-2 | FAN ASSEMBLY, BLOWER(Single) | - | 5901A20030B | R |
| 352111 | TUBE ASSEMBLY, CONNECTOR | - | 5211A20514G | R |
| 552111 | TUBE ASSEMBLY, EVAPORATOR IN | 5211A25010A | 5211A10417B | R |
| WOCZZ | CAPACITOR, DRAWING | 3A02157K | 3A02157H | R |

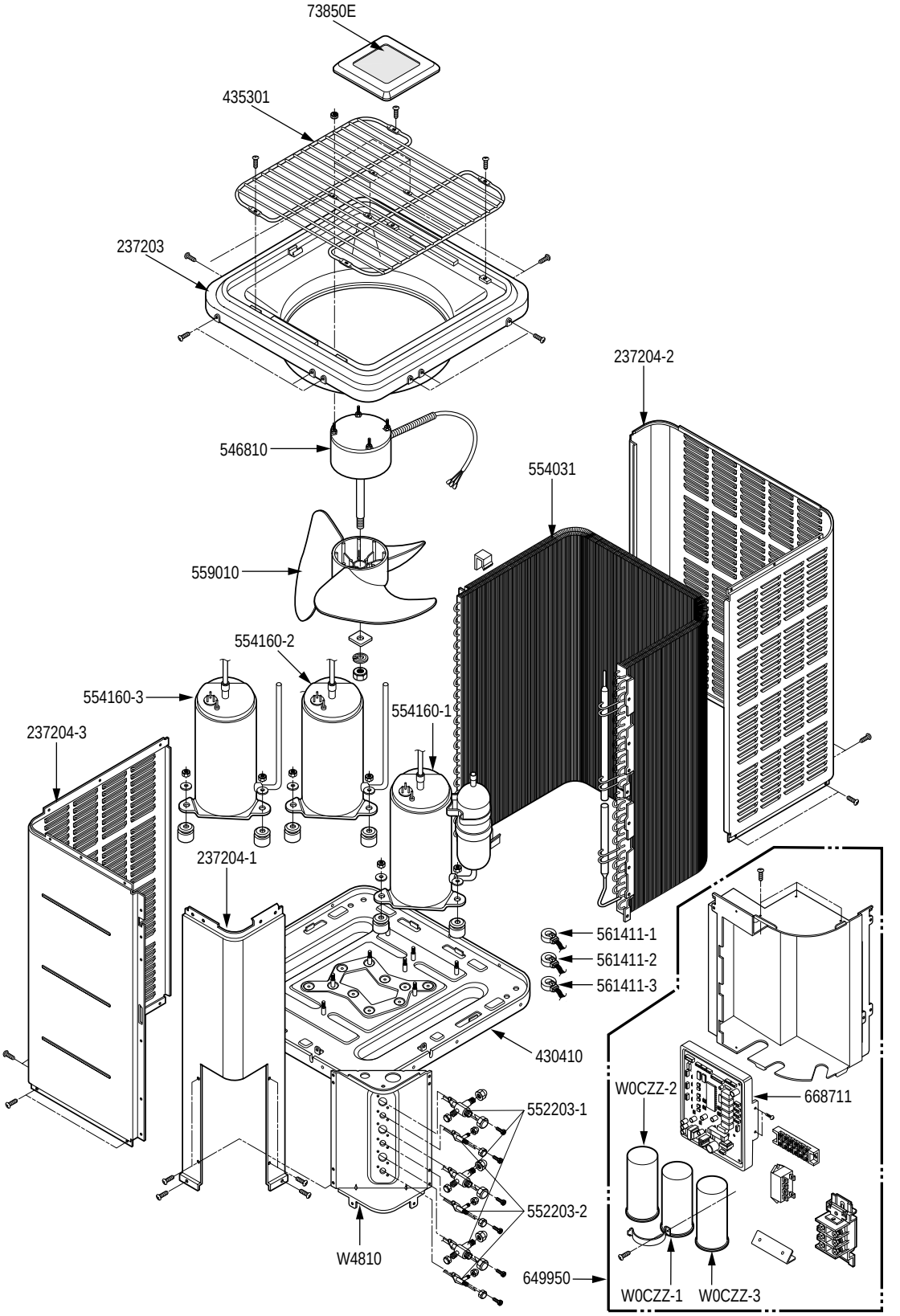
## Duct Type - High Static(BH chassis)



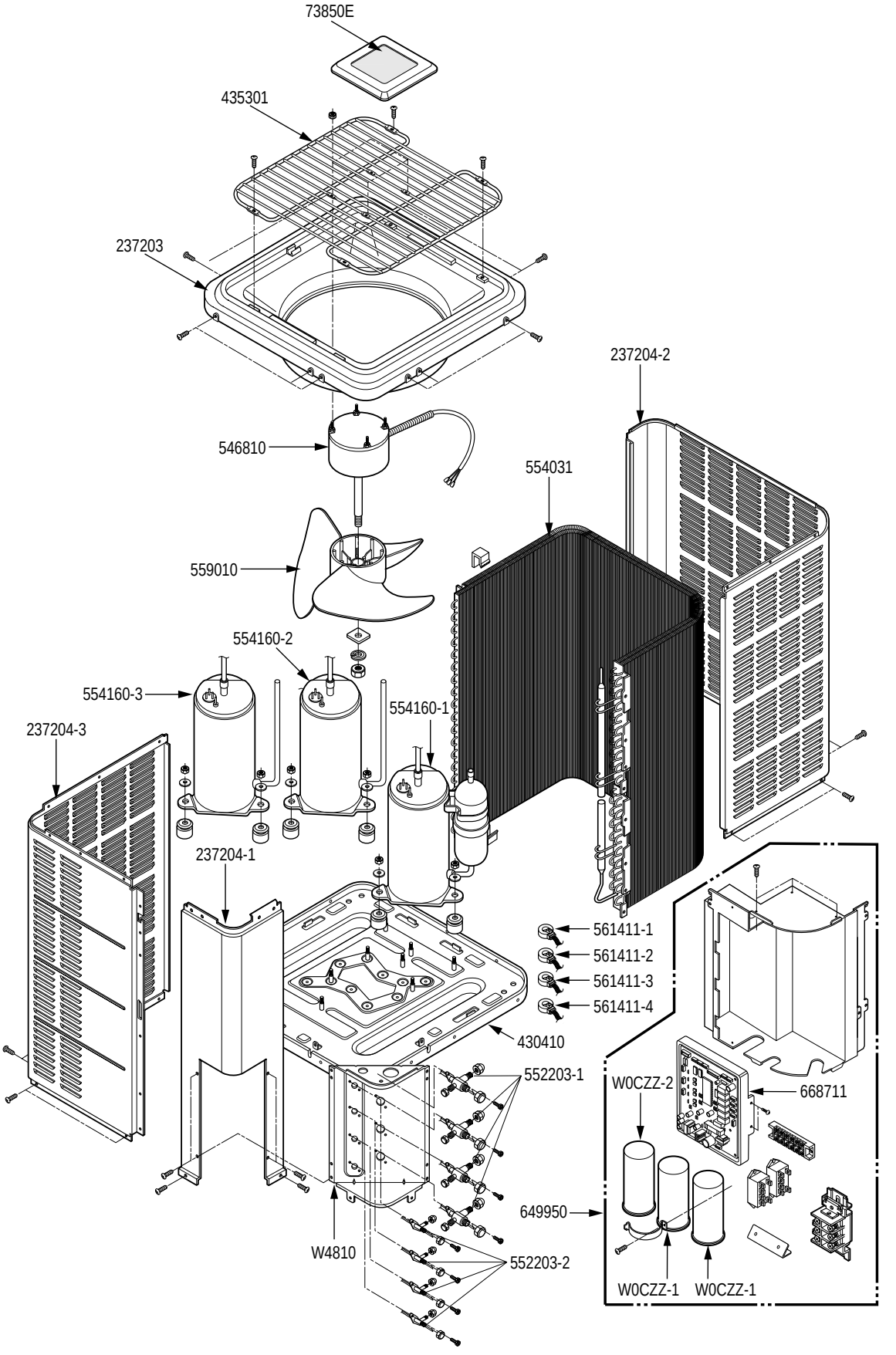
| LOCATION No. | DESCRIPTION | PART No. | | SVC CODE |
|---|---|---|---|---|
| | | LMNH242BHA0 | LMNC242BHA0 | |
| 152302 | FILTER (MECH), A/C | 5230A30001M | 5230A30001A | R |
| 237210 | PANEL ASSEMBLY, UPPER | 3721A20177A | 3721A20184A | R |
| 249951 | CONTROL BOX ASSEMBLY(INDOOR) | 4995A14002B | 4995A20011B | R |
| 263230-1 | THERMISTOR ASSEMBLY(IN) | 6323AQ3226G | 6323AQ3226G | R |
| 263230-2 | THERMISTOR ASSEMBLY(ROOM) | 6323AQ3214E | 6323AQ3214Q | R |
| 263230-3 | THERMISTOR ASSEMBLY (OUT) | 6323AQ3226V | 6323AQ3226V | R |
| 267110 | REMOTE CONTROLLER ASSEMBLY | 6711A10008X | 6711A10008X | R |
| 268714 | PWB(PCB) ASSEMBLY, MAIN | 6871A10140F | 6871A10040M | R |
| 330860 | DRAIN PAN ASSEMBLY | 3087A10008B | 3087A20023A | R |
| 336610-1 | HOUSING(MECH), WRAPPER | 3660A20017A | 3660A20008C | R |
| 336610-2 | HOUSING(MECH), WRAPPER | 3660A20018A | 3660A20010B | R |
| 346810 | MOTOR ASSEMBLY, INDOOR | 4681A10013C | 4681A20005Y | R |
| 352111* | TUBE ASSEMLBY, CONNECTOR | 5211A20514G | 5211A20514J | R |
| 352118 | TUBE ASSEMBLY, MENIFOLD(INDOOR) | 5211A20465G | 5211A30076A | R |
| 354210 | EVAPORATOR ASSEMBLY, FIRST | 5421A20100B | 5421A20008A | R |
| 359012-1 | FAN ASSEMBLY, BLOWER(Single) | 5901A10026A | 5901A10026A | R |
| 359012 | FAN ASSEMBLY, BLOWER(Motor) | 5901A10028B | 5901A10028A | R |
| 552111 | TUBE ASSEMBLY, CAPILLARY | 5211A20466L | 5211A20693D | R |
| WOCZZ | CAPACITOR, DRAWING | 2A00986D | 2A00986D | R |

# 1. Outdoor Unit

## L3UH482FA0, L3UC482FA0, L3UC482NA1



## L4UH602FA0, L4UC602FA0



| LOCATION No. | DESCRIPTION | PART No. | | | | | SVC CODE |
|---|---|---|---|---|---|---|---|
| | | L3UC482FA0 | L3UH482FA0 | L4UC602FA0 | L4UH602FA0 | L3UC482NA1 | |
| 237203 | PANEL, UPPER | 3720A10116A | 3720A10116A | 3720A10116A | 3720A10116A | 3720A10116A | R |
| 237204-1 | PANEL SIDE | 3720A10119D | 3720A10119D | 3720A10119D | 3720A10119D | 3720A10119D | R |
| 237204-2 | PANEL SIDE | 3720A10117B | 3720A10117B | 3720A10117B | 3720A10117B | 3720A10117B | R |
| 237204-3 | PANEL SIDE | 3720A10118D | 3720A10118C | 3720A10118C | 3720A10118C | 3720A10118D | R |
| 430410 | BASE, ASSY | 3041A20045M | 3041A20045M | 3041A20045K | 3041A20045K | 3041A20045M | R |
| 435301 | GRILL,DISCHARGE | 3530A20086A | 3530A20086A | 3530A20086A | 3530A20086A | 3530A20086A | R |
| 546810 | MOTOR,ASSY | 4681A20039F | 4681A20039F | 4681A20039G | 4681A20039G | 4681A20039F | R |
| 552203-1 | VALVE, SERVICE | 2H01890C | 2H01890C | 2H01890A | 2H01890A | 2H01890C | R |
| 552203-2 | VALVE, SERVICE | 2H02479E | 2H02479E | 2H02200C | 2H02200C | 2H02479E | R |
| 554031 | CONDENSER ASSY, BENT | 5403A20149L | 5403A20149N | 5403A20149Q | 5403A20149F | 5403A20149N | R |
| 554160-1 | COMPRESSOR, SET | 2520UHFK2DB | 2520UHFK2DB | 2520UHFK2EA | 2520UHFK2EA | 2520UHFK2DB | R |
| 554160-2 | COMPRESSOR, SET | 2520UMMK2BA | 2520UMMK2BA | 2520UHFK2DA | 2520UHFK2DA | 2520UMMK2BA | R |
| 554160-3 | COMPRESSOR, SET | 2520UKRK2FA | 2520UKRK2FA | 2520UKRK2FA | 2520UKRK2FA | 2520UKRK2FA | R |
| 561411-1 | COIL ASSEMBLY, EXPANSION | 6141A20018M | 6141A20018M | 6141A20018M | 6141A20018M | 6141A20018M | R |
| 561411-2 | COIL ASSEMBLY, EXPANSION | 6141A20018N | 6141A20018N | 6141A20018N | 6141A20018N | 6141A20018N | R |
| 561411-3 | COIL ASSEMBLY, EXPANSION | 6141A20018P | 6141A20018P | 6141A20018Q | 6141A20018Q | 6141A20018P | R |
| 561411-4 | COIL ASSEMBLY, EXPANSION | - | - | 6141A20018R | 6141A20018R | - | R |
| 559010 | FAN ASSY, PROPELLER | 5901A10035A | 5901A10035A | 5901A10035A | 5901A10035A | 5901A10035A | R |
| 649950 | CONTROL BOX, OUTDOOR | 4995A10148A | 4995A10148F | 4995A10148E | 4995A10148D | 4995A10148A | R |
| 668711 | PCBASSEMBLY,MAIN(OUT DOOR) | 6871A20414P | 6871A20414P | 6871A20414N | 6871A20414M | 6871A20414P | R |
| 73850E | LABEL, LOGO | 3850A20899D | 3850A20899D | 3850A20899D | 3850A20899D | 3850A20899F | |
| WOCZZ-1 | CAPACITOR | 3A00988B | 3A00988B | 2A00986X | 2A00986X | 3A00988B | R |
| WOCZZ-2 | CAPACITOR | 2A00986X | 2A00986X | 2A00986X | 2A00986X | 2A00986X | R |
| WOCZZ-3 | CAPACITOR | 6120AR2194B | 6120AR2194B | 6120AR2194B | 6120AR2194B | 6120AR2194B | R |
| W4810 | BRACKET | 4810A20284B | 4810A20284B | 4810A20288B | 4810A20288B | 4810A20284B | R |

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